

# EXHIBIT 12

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

SWISSDIGITAL USA CO., LTD.

Plaintiff,

v.

SAMSONITE INTERNATIONAL S.A.,

Defendant.

Civil Action No. 6:23-cv-196

DEMAND FOR JURY TRIAL

**COMPLAINT**

Plaintiff Swissdigital USA Co., Ltd. (“Swissdigital” or “Plaintiff”) files this Complaint against Defendant Samsonite International S.A. (“Samsonite International” or “Defendant”) and as claim for relief states as follows:

**NATURE OF THE ACTION**

1. This is an action for patent infringement under the Patent Laws of the United States, Title 35, United States Code, including 35 U.S.C. § 271.

**PARTIES**

2. Plaintiff is a Delaware limited liability company with an address of 50 Fountain Plaza, Suite 1700, Buffalo, New York 14202-2216.

3. On information and belief, Defendant is a Luxembourg limited liability company (a *société anonyme*) with a principal place of business at 25/F, Tower 2, The Gateway, Harbour City, 25 Canton Road, Tsimshatsui, Kowloon, Hong Kong.

**FACTUAL BACKGROUND**

4. Plaintiff is in the business of selling high-tech intelligent backpacks and other

innovative consumer goods throughout the world, including within the United States and within this District. Plaintiff is the owner of all rights, title, and interest in and to United States Patent Nos. 10,574,071 (“the ’071 Patent”) and 10,931,138 (“the ’138 Patent”) (collectively, the “Patents-in-Suit”). A true and correct copy of the ’071 Patent is attached hereto as Exhibit A. A true and correct copy of the ’138 Patent is attached hereto as Exhibit B.

5. The ’071 Patent, titled: “Bag or Luggage with USB Charging Connector,” issued on February 25, 2020. Plaintiff’s invention is a bag or luggage for convenient charging of personal devices such as smart phones, tablets, or any device that requires recharging. The claimed and disclosed bag or luggage provides a space for placing a power storage device inside the bag or luggage body, a power cable outlet on the outer surface of the bag or luggage body, and a USB extension cable that connects to the power storage device inside the bag. Swissdigital’s products offered for sale and sold in the United States practicing the claims of the ’071 Patent are marked with the 10,574,071 patent number.

6. The ’138 Patent, titled: “Sheath for USB Charging,” issued on February 23, 2021. Plaintiff’s invention is a sheath that may be incorporated into luggage, bags, activewear, or other wearables for convenient charging of personal devices such as smart phones, tablets, or any device that requires recharging. The claimed and disclosed sheath receives a female end of a USB cable wherein the operative end of the female end of a USB cable is provided in a flat position with the operative end being uncovered and above the outer surface of the body and the cord of the female end going through an opening between the inner surface and the outer surface. Swissdigital’s products offered for sale and sold in the United States practicing the claims of the ’138 Patent are marked with the 10,931,138 patent number.

7. On information and belief, Samsonite International is the world's largest travel luggage company. Samsonite International, together with its consolidated subsidiaries, designs, manufactures, sources, and distributes products including luggage, business and computer bags, garment bags, outdoor and casual bags, business cases, clothing, and travel accessories throughout the world under the Samsonite brand name, as well as other owned and licensed brand names. Samsonite International and its consolidated subsidiaries sell their products in North America, Asia, Europe, and Latin America through a variety of wholesale distribution channels, through their company-operated retail stores, and through e-commerce.

8. According to Samsonite International's corporate literature, "[w]ith 1,096 company-owned retail stores in 39 countries by the end of 2020, as well as a variety of wholesale distribution channels and retail websites, Samsonite is truly a global company. We own and operate three primary manufacturing sites in Belgium, Hungary[,] and India, as well as a small site in Mexico and 19 distribution centers worldwide."

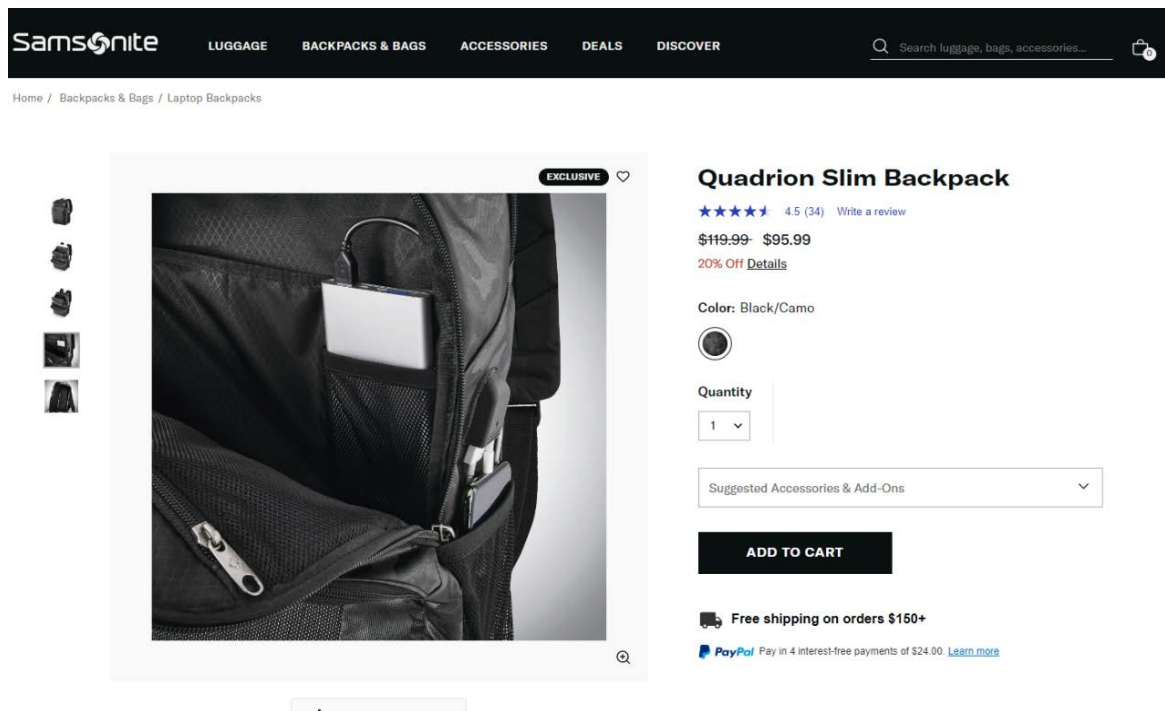
9. On information and belief, Samsonite International directs and controls the activities of its consolidated subsidiaries. According to Samsonite International's corporate literature, "Samsonite International S.A. (the 'Company'), together with its consolidated subsidiaries (the 'Group'), is principally engaged in the design, manufacture, sourcing and distribution of luggage, business and computer bags, outdoor and casual bags and travel accessories throughout the world, primarily under the *Samsonite*, *Tumi*, *American Tourister*, *Gregory*, *High Sierra*, *Kamiliant*, *ebags*, *Lipault* and *Hartmann* brand names as well as other owned and licensed brand names."

10. On information and belief, Defendant directs and controls Samsonite-owned retail stores, including those in the United States and within Texas and this District, and

distribution/manufacturing facilities. Defendant and/or its consolidated subsidiaries lease retail stores, distribution centers, office facilities, and equipment.

11. On information and belief, Defendant owns, manages, and provides content for its website [shop.samsonite.com](https://shop.samsonite.com) (the “Samsonite.com Website”).

12. On information and belief, Defendant sells and has sold products, including but not limited to the Quadtrion Slim Backpack, the Quadtrion Standard Backpack, and the Quadtrion Messenger Bag, through a variety of wholesale distribution channels, through its company-operated retail stores, and through e-commerce, including on its Samsonite.com Website.



13. Defendant also owns Samsonite trademarks for use on products such as travel accessories, leather goods, handbags, clothing, and furniture. According to Defendant’s corporate literature and its website <https://corporate.samsonite.com/en/home.html> (the “Samsonite Corporate Website”), Defendant’s products are sold in over 100 countries in Asia, North America, Europe, and Latin America through Defendant’s company-operated retail stores, a variety of

wholesale distribution channels, including department and specialty retail stores, mass merchants, warehouse clubs, and e-retailers, and through e-commerce.

14. On information and belief, Samsonite IP Holdings S.A.R.L. (“Samsonite IP”) operates as a wholly owned subsidiary of Samsonite International. Samsonite IP shares the same address as Samsonite International, 13-15 Avenue De La Liberté, Luxembourg City, Luxembourg N4 L-1931. Samsonite IP is the owner of Samsonite trademarks. The Samsonite.com Website features a Samsonite IP copyright: “Copyright 2023 Samsonite IP Holdings S.A.R.L,” as does the Samsonite Corporate Website.

15. On information and belief, Defendant advertises, sells, and conducts business throughout the United States, including within the state of Texas and within this District. On information and belief, at all relevant times, Defendant was in the business of offering for sale and selling its bag and luggage products in the United States.

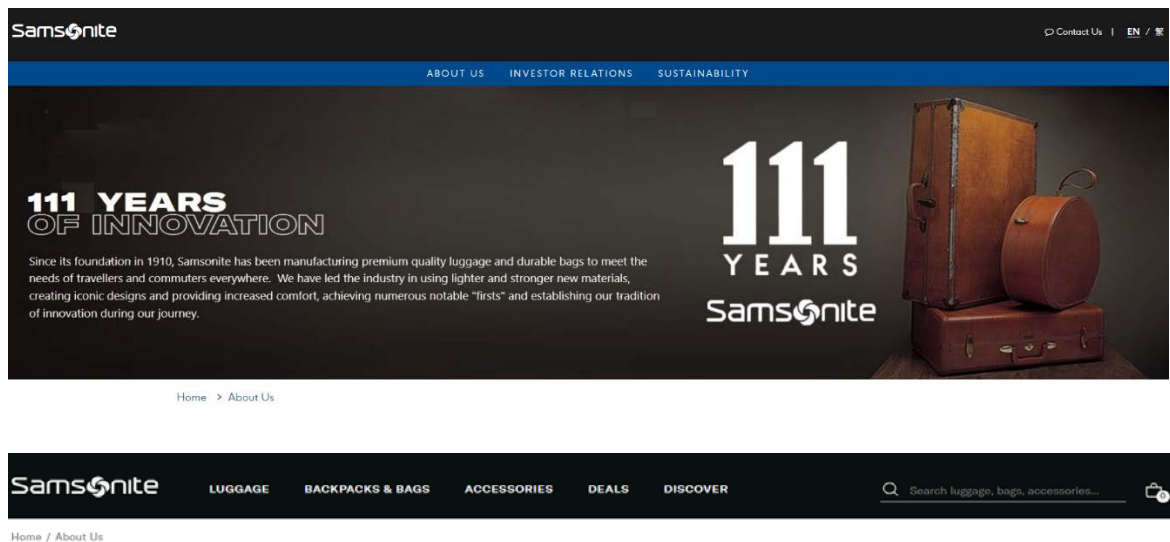
16. Defendant has and continues to infringe, contributorily infringe, and/or induce others to infringe at least claim 1 of the '071 Patent and at least claim 23 of the '138 Patent in the United States by offering for sale and selling bag and luggage products, including but not limited to the Quadrion Slim Backpack, the Quadrion Standard Backpack, and the Quadrion Messenger Bag (collectively, the “Quadrion Bags”).

17. Samsonite International directly infringes the Patents-in-Suit by selling and offering for sale, in the United States and this District, its infringing bag and luggage products through at least its Samsonite.com Website.

18. Samsonite International contributorily infringes the Patents-in-Suit by providing, including through its consolidated subsidiaries, a staple article—its infringing bag and luggage

products—to (1) U.S. retailers who, in turn, sell and offer for sale the infringing products; and (2) U.S. customers who, in turn, use the infringing products.

19. Additionally, Samsonite International induces infringement of the Patents-in-Suit by U.S. retailers by providing the infringing products to customers and to retailers. Samsonite International expends significant time and resources on the design, manufacture, and quality control of its products (which it promotes as “premium-quality,” “iconic designs,” and “the latest design technology”) and the products of its consolidated subsidiaries, such that the retailers benefit from the sales and popularity of Samsonite International’s products.



20. Samsonite International also places its trademarks on products and maintains goodwill in the marks such that the retailers benefit from sales and popularity of Samsonite International’s products and the products of its consolidated subsidiaries. The goodwill in the products, brands, and marks, including *Samsonite*, *Tumi*, *High Sierra*, *ebags*, and *Hartmann*,

entices customers to purchase the products and to infringe, and the goodwill also entices retailers to sell and to offer for sale the infringing products.

21. Additionally, Samsonite International knowingly and actively encourages customers to use the products to infringe the Patents-in-Suit by providing instructions and technical support to its customers. The Samsonite.com Website instructs customers that the “[b]uilt in USB port lets you power devices on the go” “to keep you charged and stress-free” and that the “[i]ntegrated charging port allows for easy access to personal portable chargers.”

### Details

Sleek yet sophisticated, the water-resistant Slim Backpack is reinforced with Kevlar® fibers for ultimate durability. With a USB port, padded laptop compartment and plenty of organization, there is no doubt that your belongings will be safe and secure.

- Laptop Compartment: Padded laptop compartment fits up to 15.6" laptop
- Organization: Front pocket organization for all of your business needs
- Water Bottle Storage: Dual mesh pockets for water bottle storage
- USB Port: USB power connectivity (integrated USB socket) to keep you charged and stress-free
- SmartSleeve™ fits over most upright luggage handles for easy mobility
- 600D polyester fabric
- Built with Kevlar®: Reinforced with Kevlar® fibers for durability
- Water-resistant coated material

### Specifications

|                              |  |
|------------------------------|--|
| Item#                        | 131700T607   |
| Overall Dimensions <i>i</i>  | 17.32" x 11.42" x 4.33"                                  |
| Internal Dimensions <i>i</i> | 17.32" x 11.42" x 4.33"                                  |
| Linear Dimensions <i>i</i>   | 33.1"  |
| Weight                       | 1.48 lbs   |
| Material                     | Kevlar® Reinforced Fabric <i>i</i><br>Polyester <i>i</i> |
| USB Port <i>i</i>            | Yes  |
| Laptop Size <i>i</i>         | 15.6 in.   |
| Smart Sleeve <i>i</i>        | Yes  |
| Warranty <i>i</i>            | Limited 3 Year Global Warranty                           |

Integrated charging port allows for easy access to personal portable chargers (portable charger not included)

USB Port *i*

Tablet Pocket *i*

Laptop compartment *i*

USB Port *i*

Tablet Pocket *i*

Laptop compartment *i*

Perfect Fit Laptop System *i*

Tablet Pocket *i*

Laptop compartment *i*

USB Port *i*

RFID Protection *i*

Tablet Pocket *i*

Laptop compartment *i*

USB Port *i*

RFID Protection *i*

Technology

Shop All Quadrion > Laptop Backpacks >

22. On information and belief, Samsonite International performs extensive market research of its competitors and competing products and gathers extensive information about its competitors and competing products in the marketplace, including patents relating to such products. Given the similarities between Samsonite International’s Quadrion Bags and the ’071



and '138 Patents, the similarities between the Quadrion Bags and Plaintiff's competing products that embody the asserted claims of the '071 and '138 Patents and are marked with these patent numbers, and the patent infringement litigation, which was newsworthy and publicized by Bloomberg Law and Law360, between Plaintiff and Defendant's direct competitors Targus International LLC and Wenger S.A. surrounding similar products and involving the Patents-in-Suit,<sup>12</sup> Samsonite International was aware of Plaintiff's patented technology and knew or should have known that its own products practiced at least claim 1 of the '071 Patent and at least claim 23 of the '138 Patent. With this knowledge, Samsonite International continues to sell and offer to sell its infringing products and encourage customers to use the patented features of its bags/luggage.

### **JURISDICTION**

23. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a) because this action arises under the Patent Laws of the United States, 35 U.S.C. § 1 *et seq.*

24. Venue in this judicial district is proper under 28 U.S.C. §§ 1391(c)(3) because Defendant is not a resident of the United States.

25. This Court has personal jurisdiction over Defendant because Defendant has done business and continues to do business in Texas, marketed and promoted its products within Texas, and has committed acts of patent infringement in Texas, including but not limited to: promoting, marketing, and advertising the sale of the Quadrion Bags in Texas; using, offering to sell, and selling the Quadrion Bags in Texas; importing the Quadrion Bags into Texas; inducing others to

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<sup>1</sup> *Swissdigital USA Co., Ltd. v. Wenger S.A.*, 6:21-cv-00453-ADA-DTG (W.D. Tex. 2021); *Targus Int'l LLC v. Swissdigital USA Co., Ltd.*, 8:20-cv-00782-JLS-DFM (C.D. Cal. 2020).

<sup>2</sup> In the Wenger case, this Court conducted a claim construction hearing and issued an opinion in connection with the Patents-in-Suit. *See Swissdigital USA Co., Ltd. v. Wenger S.A.*, 6:21-cv-00453-ADA-DTG (W.D. Tex. 2021) at Dkt. Nos. 54 and 55.

commit infringing acts in Texas; and contributorily infringing the Patents-in-Suit by providing, including through its consolidated subsidiaries, a staple article to (1) retailers who, in turn, sell and offer for sale the infringing products in Texas; and (2) customers in Texas who, in turn, use the infringing products. On information and belief, Defendant and/or its consolidated subsidiaries operate numerous physical retail stores throughout Texas, including within this District. Defendant also sells and offers for sale its products through e-commerce channels in Texas and within this District. Thus, Defendant knowingly benefits from the availability of the Texas market for its products and intends to serve Texas residents and increase sales in Texas and within this District. Defendant purposefully directs activities at residents of this forum, and Swissdigital's claims arise out of and relate to these activities.

26. In the alternative, this Court has personal jurisdiction over Defendant under Federal Rule of Civil Procedure 4(k) even if Defendant is not subject to personal jurisdiction in any state's courts of general jurisdiction. These causes of action arise under federal law because the claims fall under 35 U.S.C. § 271. The exercise of jurisdiction over Defendant is consistent with due process because Defendant has sufficient minimum contact with the United States such that jurisdiction does not offend traditional notions of fair play and substantial justice. Defendant has purposefully directed its activities at residents of the United States through the sale of the infringing products in the United States via its Samsonite.com Website, consolidated subsidiaries, and U.S. retailers. Defendant has also purposefully availed itself of the financial benefits of the United States through its direction, supervision, and control of the use in commerce of the Samsonite trademarks, from which it derived substantial profits. These claims arise out of and relate to the sales of Defendant's infringing products in the United States, and the assertion of jurisdiction is reasonable and fair. Finally, Defendant knowingly induced retailers to sell and to

offer for sale the infringing products and induced customers to use the products in an infringing manner in the United States.

**COUNT ONE**  
**INFRINGEMENT OF U.S. PATENT NO. 10,574,071**

27. Plaintiff incorporates by reference the allegations set forth in paragraphs 1–26 herein.

28. Pursuant to 35 U.S.C. § 271(a), Defendant has directly infringed (literally and/or under the doctrine of equivalents) at least claim 1 of the '071 Patent by designing, manufacturing, sourcing, distributing, offering for sale or use, and/or selling in the Western District of Texas and elsewhere in the United States bag and luggage products including, but not limited to, the Quadrion Bags that include a sheath for convenient charging.

29. In violation of 35 U.S.C. § 271(b), Defendant has infringed (literally and/or under the doctrine of equivalents) at least claim 1 of the '071 Patent indirectly by inducing, causing, urging, encouraging, aiding, and abetting the infringement of the '071 Patent claim by third parties, including its consolidated subsidiaries, retailers, and customers.

30. Defendant has done so by affirmative acts, including, but not limited to, selling infringing products, marketing the infringing capabilities of such products, and providing instructions, technical support, and other encouragement for the use of such products. Defendant induces infringement of the Patents-in-Suit by U.S. retailers by providing the infringing products to customers and to retailers. Defendant expends significant time and resources on the design, manufacture, and quality control of its products (which it promotes as “premium-quality,” “iconic designs,” and “the latest design technology”) and the products of its consolidated subsidiaries such that the retailers benefit from the sales and popularity of Samsonite International’s products. Defendant also places its trademarks on products and maintains goodwill in the marks such that

the retailers benefit from sales and popularity of Samsonite International's products and the products of its consolidated subsidiaries. The goodwill in the products, brands, and marks, including *Samsonite*, *Tumi*, *High Sierra*, *ebags*, and *Hartmann*, entices customers to purchase the products and to infringe, and the goodwill also entices retailers to sell and to offer for sale the products.

31. Defendant knowingly and specifically intended third parties, including, but not limited to, its consolidated subsidiaries, to infringe at least claim 1 of the '071 Patent. On information and belief, Defendant knew of the '071 Patent, performed affirmative acts that constitute induced infringement, and knew or should have known that those acts would induce actual infringement of one or more of the '071 Patent's claims by third parties. Given the extensive market research that Defendant performs, the similarities between Defendant's Quadrion Bags and the '071 Patent, the similarities between the Quadrion Bags and Plaintiff's competing products that embody the asserted claims of the '071 Patent and are marked with this patent number, and the patent infringement litigation, which was newsworthy and publicized by Bloomberg Law and Law360, between Plaintiff and Defendant's direct competitors Targus International LLC and Wenger S.A. surrounding similar products and involving the Patents-in-Suit, Defendant was aware of Plaintiff's patented technology and continues to sell and offer to sell its infringing products, including through its consolidated subsidiaries, and encourage customers to use the patented features of its bags/luggage.

32. In violation of 35 U.S.C. § 271(c), Defendant has infringed (literally and/or under the doctrine of equivalents), at least claim 1 of the '071 Patent indirectly by contributing to the infringement of at least claim 1 of the '071 Patent. Defendant provides, including through its consolidated subsidiaries, its infringing bag and luggage products—a staple article—to (1) U.S.

retailers who, in turn, sell and offer for sale the infringing products; and (2) to U.S. customers who, in turn, use the infringing products.

33. Defendant has contributed to the infringement of at least claim 1 of the '071 Patent because it knew that the Quadrion Bags it offered for sale, which feature a “[b]uilt in USB port [that] lets you power devices on the go” “to keep you charged and stress-free,” “allow[ing] for easy access to personal portable chargers,” were infringing and not suitable for substantial non-infringing use.

34. On information and belief, Defendant had knowledge of the '071 Patent since at least as early as February 2020, when the '071 Patent issued.

35. On information and belief, Defendant, while fully aware that at least the Quadrion Bags infringed one or more of the claims of the '071 Patent, offered for sale, sold, and induced others to buy, use, and sell these infringing products.

36. As a result of Defendant’s infringement of the '071 Patent, Plaintiff has suffered monetary losses for which it is entitled to an award of damages that is adequate to compensate Plaintiff for the infringement under 35 U.S.C. § 284, in no event less than a reasonable royalty.

37. On information and belief, Defendant’s infringement of the '071 Patent has been deliberate, willful, and with full knowledge, or willful blindness to knowledge, of the '071 Patent.

38. Plaintiff has suffered damages in an amount to be determined at trial by reason of Defendant’s willful infringement of the '071 Patent.

39. The Quadrion Bags meet each and every element of at least claim 1 of the '071 Patent. The Quadrion Bags meet the preamble “a bag or luggage for convenient charging, comprising.” The Quadrion Bags are bags for convenient charging, as they include an “integrated USB socket” that “lets you power devices on the go.” Samsonite International claims that this

feature keeps a user “charged and stress free.”

40. The Quadrion Bags meet the claim element “a bag or luggage body having a placing space for placing a power storage device inside the bag or luggage body and a power cable outlet on the outer surface of the bag or luggage body.” The Quadrion Bags include a place for placing a power storage device inside the bag and a power cable outlet on the outer surface of the bag body.

41. The Quadrion Bags meet the claim element “a USB extension cable having a male connector and a female connector having four sides and an operative end.” The Quadrion Bags include a USB extension cable with male connector and a female connector having four sides and an operative end.

42. The Quadrion Bags meet the claim element “wherein the male connector of the USB extension cable is inside the bag or luggage body and is used to connect to the power storage device in the placing space.” The male connector of the USB extension cable is inside the Quadrion Bags and is used to connect to the power storage device in the placing space.

43. The Quadrion Bags meet the claim element “wherein the female connector is retained outside and adjacent to the power cable outlet with one side of the four sides of the female connector in communication with the bag or luggage body, and the other three sides of the female connector are covered by a water proof sheath that protects the female connector and provides it in a flat position and wherein the sheath is above and covers the power cable outlet.” The female connector of the Quadrion Bags is retained outside and adjacent to the power cable outlet. Three sides of the female connector are covered by a water proof sheath and provides it in a flat position and is above and covers the power cable outlet. The remaining side is in communication with the bag or luggage body.

44. The Quadrion Bags meet the claim element “wherein the sheath does not cover the operative end of the female connector which is exposed and fixedly attached above the exterior of the bag such that the operative end of the female connector does not need to be moved and the bag or luggage body does not need to be opened to accept a charging interface of a product to be charged.” The operative end of the Quadrion Bags’ female connector is exposed and not covered by the sheath. The operative end of the female connector is fixedly attached to the bag, and as it is on the exterior of the bag, the bag does not need to be opened to accept a charging interface of a product to be charged.

**COUNT TWO**  
**INFRINGEMENT OF U.S. PATENT NO. 10,931,138**

45. Plaintiff incorporates by reference the allegations set forth in paragraphs 1–44 herein.

46. Pursuant to 35 U.S.C. § 271(a), Defendant has directly infringed (literally and/or under the doctrine of equivalents) at least claim 23 of the ’138 Patent by designing, manufacturing, sourcing, distributing, offering for sale or use, and/or selling in the Western District of Texas and elsewhere in the United States, luggage products including, but not limited to, the Quadrion Bags that include a sheath for a USB charger for convenient charging of personal devices such as smart phones, tablets, or any device that requires recharging.

47. In violation of 35 U.S.C. § 271(b), Defendant has infringed (literally and/or under the doctrine of equivalents) at least claim 23 of the ’138 Patent indirectly by inducing, causing, urging, encouraging, aiding, and abetting the infringement of the ’138 Patent claim by third parties, including its consolidated subsidiaries, retailers, and customers.

48. Defendant has done so by affirmative acts, including but not limited to selling infringing products, marketing the infringing capabilities of such products, and providing

instructions, technical support, and other encouragement for the use of such products. Defendant induces infringement of the Patents-in-Suit by U.S. retailers by providing the infringing products to customers and to retailers. Defendant expends significant time and resources on the design, manufacture, and quality control of its products (which it promotes as “premium-quality,” “iconic designs,” and “the latest design technology”) and the products of its consolidated subsidiaries such that the retailers benefit from the sales and popularity of Samsonite International’s products. Defendant also places its trademarks on products and maintains goodwill in the marks such that the retailers benefit from sales and popularity of Samsonite International’s products and the products of its consolidated subsidiaries. The goodwill in the products, brands, and marks, including *Samsonite*, *Tumi*, *High Sierra*, *ebags*, and *Hartmann*, entices customers to purchase the products and to infringe, and the goodwill also entices retailers to sell and to offer for sale the products.

49. Defendant knowingly and specifically intended third parties, including but not limited to its consolidated subsidiaries, to infringe at least claim 23 of the ’138 Patent. On information and belief, Defendant knew of the ’138 Patent, performed affirmative acts that constitute induced infringement, and knew or should have known that those acts would induce actual infringement of one or more of the ’138 Patent’s claims by third parties. Given the extensive market research that Defendant performs, the similarities between Defendant’s Quadrion Bags and the ’138 Patent, the similarities between Defendant’s Quadrion Bags and Plaintiff’s competing products that embody the asserted claims of the ’138 Patent and are marked with this patent number, and the patent infringement litigation, which was newsworthy and publicized by Bloomberg Law and Law360, between Plaintiff and Defendant’s direct competitors Targus International LLC and Wenger S.A. surrounding similar products and involving the Patents-in-Suit, Defendant was aware of Plaintiff’s patented technology and continues to sell and offer to sell



its infringing products, including through its consolidated subsidiaries, and encourage customers to use the patented features of its bags/luggage.

50. On information and belief, Defendant had knowledge of the '138 Patent since at least as early as February 2021, when the '138 Patent issued.

51. On information and belief, Defendant, while fully aware that at least the Quadrion Bags infringed one or more of the claims of the '138 Patent, offered for sale, sold, and induced others to buy, use, and sell these infringing products.

52. In violation of 35 U.S.C. § 271(c), Defendant has infringed (literally and/or under the doctrine of equivalents), at least claim 23 of the '138 Patent indirectly by contributing to the infringement of at least claim 23 of the '138 Patent. Defendant provides its infringing bag and luggage products—a staple article—to (1) U.S. retailers who, in turn, sell and offer for sale the infringing products; and (2) to U.S. customers who, in turn, use the infringing products.

53. Defendant has contributed to the infringement of at least claim 23 of the '138 Patent because it knew that the Quadrion Bags it offered for sale, which feature a “[b]uilt in USB port [that] lets you power devices on the go” “to keep you charged and stress-free,” “allow[ing] for easy access to personal portable chargers,” were infringing and not suitable for substantial non-infringing use.

54. As a result of Defendant’s infringement of the '138 Patent, Plaintiff has suffered monetary losses for which it is entitled to an award of damages that is adequate to compensate Plaintiff for the infringement under 35 U.S.C. § 284, in no event less than a reasonable royalty.

55. On information and belief, Defendant’s infringement of the '138 Patent has been deliberate, willful, and with full knowledge, or willful blindness to knowledge, of the '138 Patent.

56. Plaintiff has suffered damages in an amount to be determined at trial by reason of

Defendant's willful infringement of the '138 Patent.

57. The Quadrion Bags meet each and every element of at least claim 23 of the '138 Patent. The Quadrion Bags meet the preamble "A sheath for convenient charging." The Quadrion Bags are bags for convenient charging, as they include an "integrated USB socket" that "lets you power devices on the go." Samsonite International claims that this feature keeps a user "charged and stress free."

58. The Quadrion Bags meet the claim element "a sheath having a raised portion that extends above an outer surface of a body, wherein the raised portion has a USB opening, and a surrounding bottom portion surrounding at least a portion of the raised portion." The Quadrion Bags include a raised integrated USB socket.

59. The Quadrion Bags meet the claim element "wherein the body has an inner surface, an outer surface and a body opening between the inner surface and the outer surface."

60. The Quadrion Bags meet the claim element "wherein the sheath is at the body opening with the raised portion above the outer surface and at least a portion of the surrounding bottom portion is in communication with a portion of the body."

61. The Quadrion Bags meet the claim element "wherein the sheath has a female end of a USB cable in the USB opening, wherein the female end of the USB cable has four sides, an operative end and a cord end and the operative end of the female end of the USB cable is retained in the USB opening to provide the female end of the USB cable in a flat position with the operative end of the female connector being uncovered and above the outer surface of the body." The Quadrion Bags include a USB extension cable with a male connector and a female connector having four sides and an operative end.

**PRAYER FOR RELIEF**

Wherefore, Plaintiff prays for relief, as follows:

A. That Plaintiff is the owner of all right, title, and interest in and to United States Patent No. 10,574,071, together with all rights of recovery under such patent for past infringement thereof;

B. That United States Patent No. 10,574,071 is valid and enforceable in law and that Defendant has infringed said patent;

C. Awarding to Plaintiff its damages caused by Defendant's infringement of United States Patent No. 10,574,071;

D. That Plaintiff is the owner of all right, title, and interest in and to United States Patent No. 10,931,138, together with all rights of recovery under such patent for past infringement thereof;

E. That United States Patent No. 10,931,138 is valid and enforceable in law and that Defendant has infringed said patent;

F. Awarding to Plaintiff its damages caused by Defendant's infringement of United States Patent No. 10,931,138;

G. Entering a preliminary and permanent injunction against Defendant, its officers, employees, attorneys, all parent and subsidiary corporations and affiliates, their assigns and successors in interest, and those persons in active concert or participation with any of them who receive notice of the injunction, enjoining them from continuing acts of infringement of the Patents-in-Suit;

H. That Defendant's infringement has been willful and said damages be trebled pursuant to 35 U.S.C. § 284;

I. That this is an exceptional case and awarding to Plaintiff its costs, expenses, and reasonable attorney fees pursuant to 35 U.S.C. § 285; and

J. Awarding to Plaintiff such other and further relief as the Court may deem just and proper.

**DEMAND FOR JURY TRIAL**

In accordance with Fed. R. Civ. P. 38(b) Plaintiff hereby demands a trial by jury for all issues triable by jury.

Dated: March 14, 2023

Respectfully submitted,

By: /s/ Jacqueline P. Altman  
Dariush Keyhani (*pro hac vice to be filed*)  
Frances H. Stephenson (*pro hac vice to be filed*)  
Keyhani LLC  
1050 30<sup>th</sup> Street NW  
Washington, DC 20007  
T. 202.748.8950  
F. 202.318.8958  
dkeyhani@keyhanillc.com  
fstephenson@keyhanillc.com

Jacqueline P. Altman  
State Bar No. 24087010  
John P. Palmer  
State Bar No. 15430600  
John A. “Andy” Powell  
State Bar No. 24029775  
USPTO Reg. No. 71,533  
NAMAN HOWELL SMITH & LEE, PLLC  
400 Austin Ave., Suite 800  
Waco, Texas 76701  
jaltman@namanhowell.com  
palmer@namanhowell.com  
apowell@namanhowell.com

ANDY TINDEL  
Texas State Bar No. 20054500

MT<sup>2</sup>LAW GROUP  
MANN | TINDEL | THOMPSON  
112 East Line Street, Suite 304  
Tyler, Texas 75702  
Tel: (903) 596-0900  
Fax: (903) 596-0909  
Email: atindel@andytindel.com

*Attorneys for Plaintiff Swissdigital USA Co., Ltd.*

**CERTIFICATE OF SERVICE**

I hereby certify that on the 14th day of March, 2023, the foregoing document was electronically filed with the Clerk of Court using the CM/ECF system, which will send notification of such filing to all attorneys or record who have who have consented to accept this Notice as service of this document by electronic means.

/s/ Jacqueline P. Altman  
Jacqueline P. Altman

## CIVIL COVER SHEET

The JS 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. (SEE INSTRUCTIONS ON NEXT PAGE OF THIS FORM.)

## I. (a) PLAINTIFFS

Swissdigital USA Co., Ltd.

(b) County of Residence of First Listed Plaintiff Erie, New York  
(EXCEPT IN U.S. PLAINTIFF CASES)

(c) Attorneys (Firm Name, Address, and Telephone Number)

See Attachment

## DEFENDANTS

Samsonite International S.A.

County of Residence of First Listed Defendant Kowloon, Hong Kong  
(IN U.S. PLAINTIFF CASES ONLY)NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF  
THE TRACT OF LAND INVOLVED.

Attorneys (If Known)

## II. BASIS OF JURISDICTION (Place an "X" in One Box Only)

- ☐ 1 U.S. Government Plaintiff ☒ 3 Federal Question  
(U.S. Government Not a Party)
- ☐ 2 U.S. Government Defendant ☐ 4 Diversity  
(Indicate Citizenship of Parties in Item III)

## III. CITIZENSHIP OF PRINCIPAL PARTIES (Place an "X" in One Box for Plaintiff and One Box for Defendant)

- |   | PTF                        | DEF                        |   | PTF                        | DEF                        |
|---|----------------------------|----------------------------|---|----------------------------|----------------------------|
| Citizen of This State                   | <input type="checkbox"/> 1 | <input type="checkbox"/> 1 | Incorporated or Principal Place of Business In This State     | <input type="checkbox"/> 4 | <input type="checkbox"/> 4 |
| Citizen of Another State                | <input type="checkbox"/> 2 | <input type="checkbox"/> 2 | Incorporated and Principal Place of Business In Another State | <input type="checkbox"/> 5 | <input type="checkbox"/> 5 |
| Citizen or Subject of a Foreign Country | <input type="checkbox"/> 3 | <input type="checkbox"/> 3 | Foreign Nation  | <input type="checkbox"/> 6 | <input type="checkbox"/> 6 |

## IV. NATURE OF SUIT (Place an "X" in One Box Only)

Click here for: [Nature of Suit Code Descriptions.](#)

| CONTRACT  | TORTS  | FORFEITURE/PENALTY  | BANKRUPTCY  | OTHER STATUTES  |
|---|--|---|---|---|
| <input type="checkbox"/> 110 Insurance<br><input type="checkbox"/> 120 Marine<br><input type="checkbox"/> 130 Miller Act<br><input type="checkbox"/> 140 Negotiable Instrument<br><input type="checkbox"/> 150 Recovery of Overpayment & Enforcement of Judgment<br><input type="checkbox"/> 151 Medicare Act<br><input type="checkbox"/> 152 Recovery of Defaulted Student Loans (Excludes Veterans)<br><input type="checkbox"/> 153 Recovery of Overpayment of Veteran's Benefits<br><input type="checkbox"/> 160 Stockholders' Suits<br><input type="checkbox"/> 190 Other Contract<br><input type="checkbox"/> 195 Contract Product Liability<br><input type="checkbox"/> 196 Franchise | <b>PERSONAL INJURY</b><br><input type="checkbox"/> 310 Airplane<br><input type="checkbox"/> 315 Airplane Product Liability<br><input type="checkbox"/> 320 Assault, Libel & Slander<br><input type="checkbox"/> 330 Federal Employers' Liability<br><input type="checkbox"/> 340 Marine<br><input type="checkbox"/> 345 Marine Product Liability<br><input type="checkbox"/> 350 Motor Vehicle<br><input type="checkbox"/> 355 Motor Vehicle Product Liability<br><input type="checkbox"/> 360 Other Personal Injury<br><input type="checkbox"/> 362 Personal Injury - Medical Malpractice<br><b>PERSONAL INJURY</b><br><input type="checkbox"/> 365 Personal Injury - Product Liability<br><input type="checkbox"/> 367 Health Care/Pharmaceutical Personal Injury Product Liability<br><input type="checkbox"/> 368 Asbestos Personal Injury Product Liability<br><b>PERSONAL PROPERTY</b><br><input type="checkbox"/> 370 Other Fraud<br><input type="checkbox"/> 371 Truth in Lending<br><input type="checkbox"/> 380 Other Personal Property Damage<br><input type="checkbox"/> 385 Property Damage Product Liability | <input type="checkbox"/> 625 Drug Related Seizure of Property 21 USC 881<br><input type="checkbox"/> 690 Other<br><b>LABOR</b><br><input type="checkbox"/> 710 Fair Labor Standards Act<br><input type="checkbox"/> 720 Labor/Management Relations<br><input type="checkbox"/> 740 Railway Labor Act<br><input type="checkbox"/> 751 Family and Medical Leave Act<br><input type="checkbox"/> 790 Other Labor Litigation<br><input type="checkbox"/> 791 Employee Retirement Income Security Act<br><b>IMMIGRATION</b><br><input type="checkbox"/> 462 Naturalization Application<br><input type="checkbox"/> 465 Other Immigration Actions | <input type="checkbox"/> 422 Appeal 28 USC 158<br><input type="checkbox"/> 423 Withdrawal 28 USC 157<br><b>PROPERTY RIGHTS</b><br><input type="checkbox"/> 820 Copyrights<br><input checked="" type="checkbox"/> 830 Patent<br><input type="checkbox"/> 835 Patent - Abbreviated New Drug Application<br><input type="checkbox"/> 840 Trademark<br><input type="checkbox"/> 880 Defend Trade Secrets Act of 2016<br><b>SOCIAL SECURITY</b><br><input type="checkbox"/> 861 HIA (1395ff)<br><input type="checkbox"/> 862 Black Lung (923)<br><input type="checkbox"/> 863 DIWC/DIWW (405(g))<br><input type="checkbox"/> 864 SSID Title XVI<br><input type="checkbox"/> 865 RSI (405(g))<br><b>FEDERAL TAX SUITS</b><br><input type="checkbox"/> 870 Taxes (U.S. Plaintiff or Defendant)<br><input type="checkbox"/> 871 IRS—Third Party 26 USC 7609 | <input type="checkbox"/> 375 False Claims Act<br><input type="checkbox"/> 376 Qui Tam (31 USC 3729(a))<br><input type="checkbox"/> 400 State Reapportionment<br><input type="checkbox"/> 410 Antitrust<br><input type="checkbox"/> 430 Banks and Banking<br><input type="checkbox"/> 450 Commerce<br><input type="checkbox"/> 460 Deportation<br><input type="checkbox"/> 470 Racketeer Influenced and Corrupt Organizations<br><input type="checkbox"/> 480 Consumer Credit (15 USC 1681 or 1692)<br><input type="checkbox"/> 485 Telephone Consumer Protection Act<br><input type="checkbox"/> 490 Cable/Sat TV<br><input type="checkbox"/> 850 Securities/Commodities/Exchange<br><input type="checkbox"/> 890 Other Statutory Actions<br><input type="checkbox"/> 891 Agricultural Acts<br><input type="checkbox"/> 893 Environmental Matters<br><input type="checkbox"/> 895 Freedom of Information Act<br><input type="checkbox"/> 896 Arbitration<br><input type="checkbox"/> 899 Administrative Procedure Act/Review or Appeal of Agency Decision<br><input type="checkbox"/> 950 Constitutionality of State Statutes |
| <b>REAL PROPERTY</b><br><input type="checkbox"/> 210 Land Condemnation<br><input type="checkbox"/> 220 Foreclosure<br><input type="checkbox"/> 230 Rent Lease & Ejectment<br><input type="checkbox"/> 240 Torts to Land<br><input type="checkbox"/> 245 Tort Product Liability<br><input type="checkbox"/> 290 All Other Real Property  | <b>CIVIL RIGHTS</b><br><input type="checkbox"/> 440 Other Civil Rights<br><input type="checkbox"/> 441 Voting<br><input type="checkbox"/> 442 Employment<br><input type="checkbox"/> 443 Housing/Accommodations<br><input type="checkbox"/> 445 Amer. w/Disabilities - Employment<br><input type="checkbox"/> 446 Amer. w/Disabilities - Other<br><input type="checkbox"/> 448 Education<br><b>PRISONER PETITIONS</b><br><b>Habeas Corpus:</b><br><input type="checkbox"/> 463 Alien Detainee<br><input type="checkbox"/> 510 Motions to Vacate Sentence<br><input type="checkbox"/> 530 General<br><input type="checkbox"/> 535 Death Penalty<br><b>Other:</b><br><input type="checkbox"/> 540 Mandamus & Other<br><input type="checkbox"/> 550 Civil Rights<br><input type="checkbox"/> 555 Prison Condition<br><input type="checkbox"/> 560 Civil Detainee - Conditions of Confinement  |   |   |   |

## V. ORIGIN (Place an "X" in One Box Only)

- ☒ 1 Original Proceeding ☐ 2 Removed from State Court ☐ 3 Remanded from Appellate Court ☐ 4 Reinstated or Reopened ☐ 5 Transferred from Another District (specify) ☐ 6 Multidistrict Litigation - Transfer ☐ 8 Multidistrict Litigation - Direct File

## VI. CAUSE OF ACTION

Cite the U.S. Civil Statute under which you are filing (Do not cite jurisdictional statutes unless diversity):  
35 U.S.C. 271Brief description of cause:  
Patent Infringement

## VII. REQUESTED IN COMPLAINT:

☐ CHECK IF THIS IS A CLASS ACTION UNDER RULE 23, F.R.Cv.P.

DEMAND \$

CHECK YES only if demanded in complaint:

JURY DEMAND: ☒ Yes ☐ No

## VIII. RELATED CASE(S) IF ANY

(See instructions):

JUDGE Judge AlbrightDOCKET NUMBER 6:21-cv-00453-ADA-DTG

DATE

March 14, 2023

SIGNATURE OF ATTORNEY OF RECORD

Jacqueline Altman

Digitally signed by Jacqueline Altman  
Date: 2023.03.14 19:28:10 -0500

## FOR OFFICE USE ONLY

RECEIPT # \_\_\_\_\_ AMOUNT \_\_\_\_\_ APPLYING IFP \_\_\_\_\_ JUDGE \_\_\_\_\_ MAG. JUDGE \_\_\_\_\_

**INSTRUCTIONS FOR ATTORNEYS COMPLETING CIVIL COVER SHEET FORM JS 44**

## Authority For Civil Cover Sheet

The JS 44 civil cover sheet and the information contained herein neither replaces nor supplements the filings and service of pleading or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. Consequently, a civil cover sheet is submitted to the Clerk of Court for each civil complaint filed. The attorney filing a case should complete the form as follows:

- I.(a) Plaintiffs-Defendants.** Enter names (last, first, middle initial) of plaintiff and defendant. If the plaintiff or defendant is a government agency, use only the full name or standard abbreviations. If the plaintiff or defendant is an official within a government agency, identify first the agency and then the official, giving both name and title.
- (b) County of Residence.** For each civil case filed, except U.S. plaintiff cases, enter the name of the county where the first listed plaintiff resides at the time of filing. In U.S. plaintiff cases, enter the name of the county in which the first listed defendant resides at the time of filing. (NOTE: In land condemnation cases, the county of residence of the "defendant" is the location of the tract of land involved.)
- (c) Attorneys.** Enter the firm name, address, telephone number, and attorney of record. If there are several attorneys, list them on an attachment, noting in this section "(see attachment)".
- II. Jurisdiction.** The basis of jurisdiction is set forth under Rule 8(a), F.R.Cv.P., which requires that jurisdictions be shown in pleadings. Place an "X" in one of the boxes. If there is more than one basis of jurisdiction, precedence is given in the order shown below.
- United States plaintiff. (1) Jurisdiction based on 28 U.S.C. 1345 and 1348. Suits by agencies and officers of the United States are included here. United States defendant. (2) When the plaintiff is suing the United States, its officers or agencies, place an "X" in this box.
- Federal question. (3) This refers to suits under 28 U.S.C. 1331, where jurisdiction arises under the Constitution of the United States, an amendment to the Constitution, an act of Congress or a treaty of the United States. In cases where the U.S. is a party, the U.S. plaintiff or defendant code takes precedence, and box 1 or 2 should be marked.
- Diversity of citizenship. (4) This refers to suits under 28 U.S.C. 1332, where parties are citizens of different states. When Box 4 is checked, the citizenship of the different parties must be checked. (See Section III below; **NOTE: federal question actions take precedence over diversity cases.**)
- III. Residence (citizenship) of Principal Parties.** This section of the JS 44 is to be completed if diversity of citizenship was indicated above. Mark this section for each principal party.
- IV. Nature of Suit.** Place an "X" in the appropriate box. If there are multiple nature of suit codes associated with the case, pick the nature of suit code that is most applicable. Click here for: [Nature of Suit Code Descriptions](#).
- V. Origin.** Place an "X" in one of the seven boxes.
- Original Proceedings. (1) Cases which originate in the United States district courts.
- Removed from State Court. (2) Proceedings initiated in state courts may be removed to the district courts under Title 28 U.S.C., Section 1441.
- Remanded from Appellate Court. (3) Check this box for cases remanded to the district court for further action. Use the date of remand as the filing date.
- Reinstated or Reopened. (4) Check this box for cases reinstated or reopened in the district court. Use the reopening date as the filing date.
- Transferred from Another District. (5) For cases transferred under Title 28 U.S.C. Section 1404(a). Do not use this for within district transfers or multidistrict litigation transfers.
- Multidistrict Litigation – Transfer. (6) Check this box when a multidistrict case is transferred into the district under authority of Title 28 U.S.C. Section 1407.
- Multidistrict Litigation – Direct File. (8) Check this box when a multidistrict case is filed in the same district as the Master MDL docket.
- PLEASE NOTE THAT THERE IS NOT AN ORIGIN CODE 7.** Origin Code 7 was used for historical records and is no longer relevant due to changes in statute.
- VI. Cause of Action.** Report the civil statute directly related to the cause of action and give a brief description of the cause. **Do not cite jurisdictional statutes unless diversity.** Example: U.S. Civil Statute: 47 USC 553 Brief Description: Unauthorized reception of cable service.
- VII. Requested in Complaint.** Class Action. Place an "X" in this box if you are filing a class action under Rule 23, F.R.Cv.P.
- Demand. In this space enter the actual dollar amount being demanded or indicate other demand, such as a preliminary injunction.
- Jury Demand. Check the appropriate box to indicate whether or not a jury is being demanded.
- VIII. Related Cases.** This section of the JS 44 is used to reference related pending cases, if any. If there are related pending cases, insert the docket numbers and the corresponding judge names for such cases.

**Date and Attorney Signature.** Date and sign the civil cover sheet.

**CIVIL COVER SHEET ATTACHMENT**

**Attorneys:**

Darius Keyhani (*pro hac vice* to be filed)  
Frances H. Stephenson (*pro hac vice* to be filed)  
Keyhani LLC  
1050 30th Street NW  
Washington, DC 20007  
T. 202.748.8950  
F. 202.318.8958  
dkeyhani@keyhanillc.com  
fstephenson@keyhanillc.com

Jacqueline P. Altman  
State Bar No. 24087010  
John P. Palmer  
State Bar No. 15430600  
John A. “Andy” Powell  
State Bar No. 24029775  
USPTO Reg. No. 71,533  
NAMAN HOWELL SMITH & LEE, PLLC  
400 Austin Ave., Suite 800  
Waco, Texas 76701  
jaltman@namanhowell.com  
palmer@namanhowell.com  
powell@namanhowell.com

Andy Tindel  
Texas State Bar No. 20054500  
MT<sup>2</sup>LAW GROUP  
MANN | TINDEL | THOMPSON  
112 East Line Street, Suite 304  
Tyler, Texas 75702  
Tel: (903) 596-0900  
Fax: (903) 596-0909  
Email: atindel@andytindel.com



# EXHIBIT A



US010574071B2

(12) **United States Patent**  
**Zhijian**

(10) **Patent No.:** **US 10,574,071 B2**

(45) **Date of Patent:** **Feb. 25, 2020**

(54) **BAG OR LUGGAGE WITH USB CHARGING CONNECTOR**

(71) Applicant: **Li Zhijian**, Fujian (CN)

(72) Inventor: **Li Zhijian**, Fujian (CN)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 18 days.

(21) Appl. No.: **14/836,104**

(22) Filed: **Aug. 26, 2015**

(65) **Prior Publication Data**

US 2016/0141904 A1 May 19, 2016

(30) **Foreign Application Priority Data**

Nov. 18, 2014 (CN) ..... 2014 2 0692148 U

(51) **Int. Cl.**  
**H02J 7/00** (2006.01)

(52) **U.S. Cl.**  
CPC ..... **H02J 7/0054** (2013.01); **H02J 7/0042** (2013.01); **H02J 2007/0062** (2013.01)

(58) **Field of Classification Search**  
CPC . H02J 7/0054; H02J 7/0042; H02J 2007/0062  
USPC ..... 320/103, 107, 111; 224/902  
See application file for complete search history.

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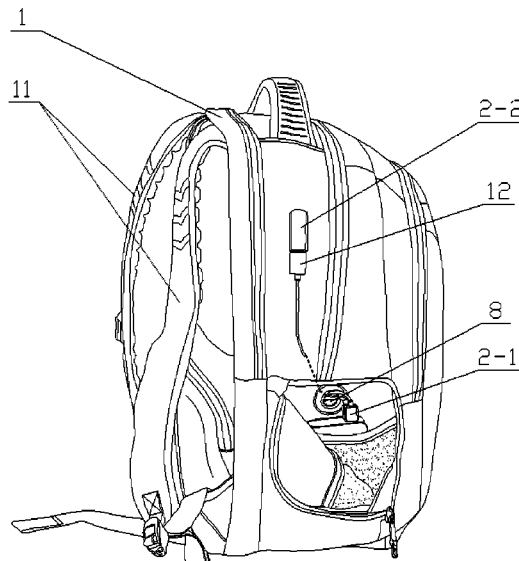
*Primary Examiner* — Richard V Muralidar

(74) *Attorney, Agent, or Firm* — Jennifer Meredith, Esq.;  
Meredith Attorneys, PLLC

(57) **ABSTRACT**

A backpack for convenient charging, the backpack comprising: a backpack body with a battery storage space to accommodate a storage battery unit; at least one strap connected to the backpack body, where at least one strap has a fixture for fixing a product to be charged and a power cable output port proximal to the fixture; wherein the backpack body further includes at least one cable passage leading from the battery storage space to the power cable output port to accommodate at least one power cable each with a first end and a second end, wherein at least one of the first end and the second end of the at least one power cable is connected to the storage battery unit to be charged.

**17 Claims, 10 Drawing Sheets**



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Page 2

(56)

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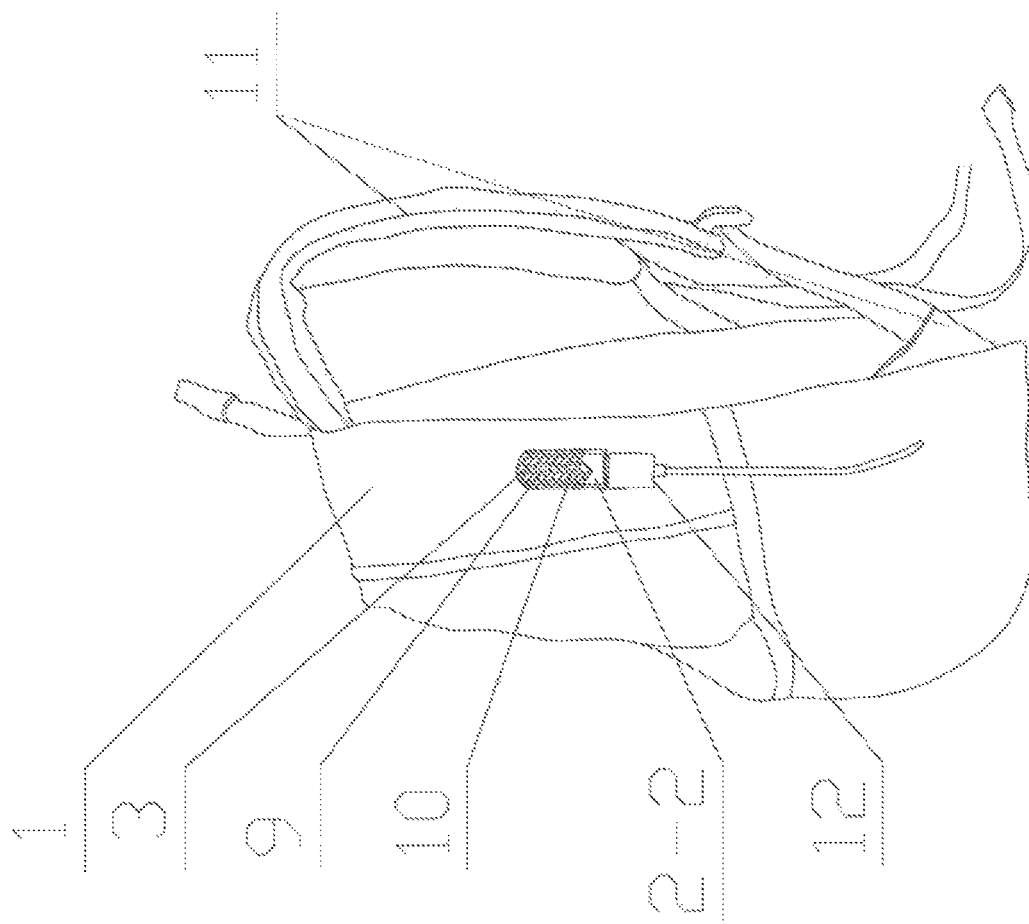
\* cited by examiner

**U.S. Patent**

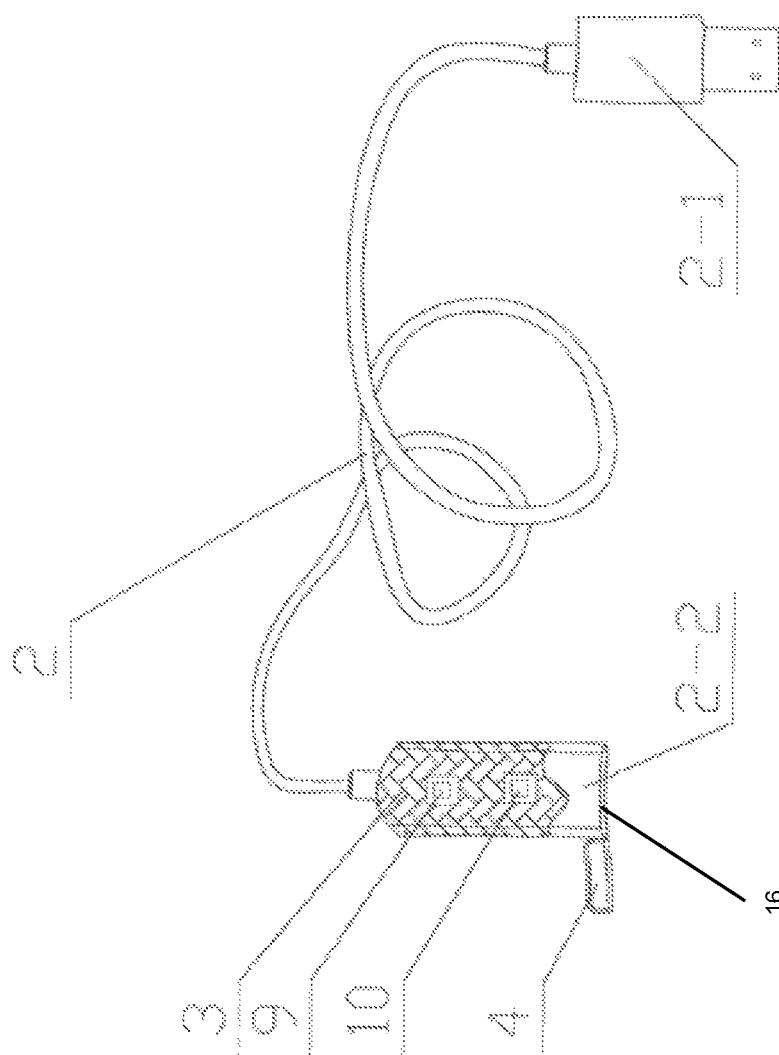
**Feb. 25, 2020**

**Sheet 1 of 10**

**US 10,574,071 B2**



**FIGURE 1**

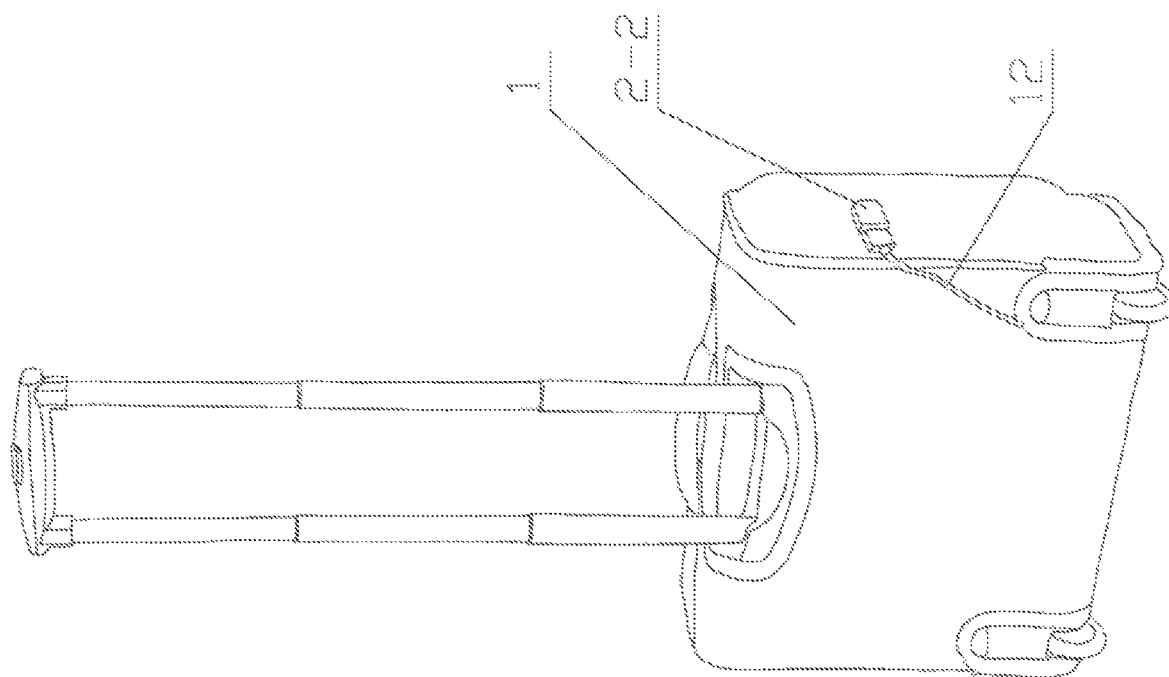


**U.S. Patent**

**Feb. 25, 2020**

**Sheet 3 of 10**

**US 10,574,071 B2**



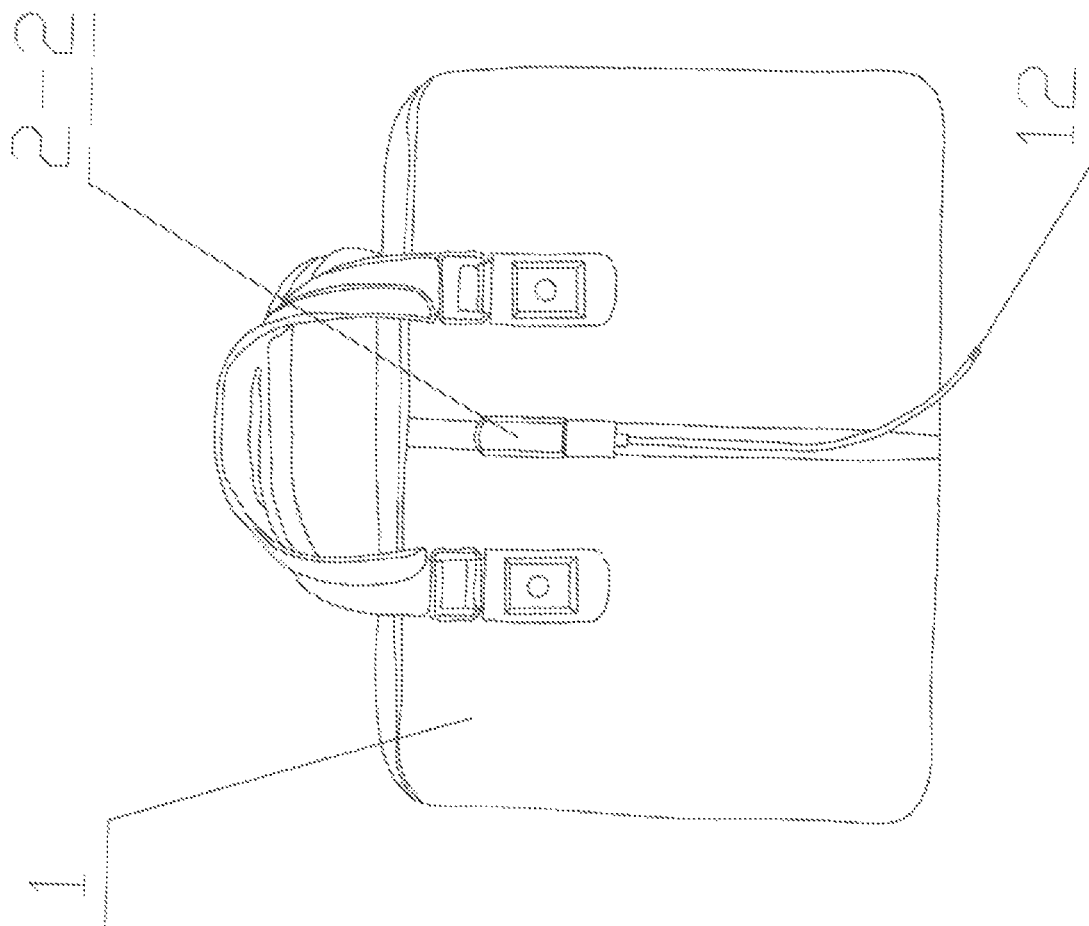
**FIGURE 3**

**U.S. Patent**

**Feb. 25, 2020**

**Sheet 4 of 10**

**US 10,574,071 B2**



**FIGURE 4**

**U.S. Patent**

**Feb. 25, 2020**

**Sheet 5 of 10**

**US 10,574,071 B2**

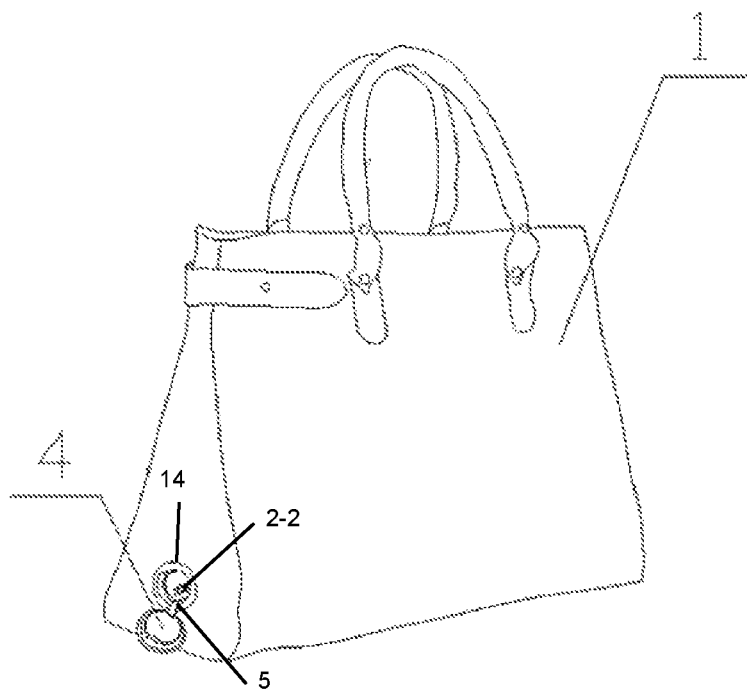


FIGURE 5



FIGURE 6

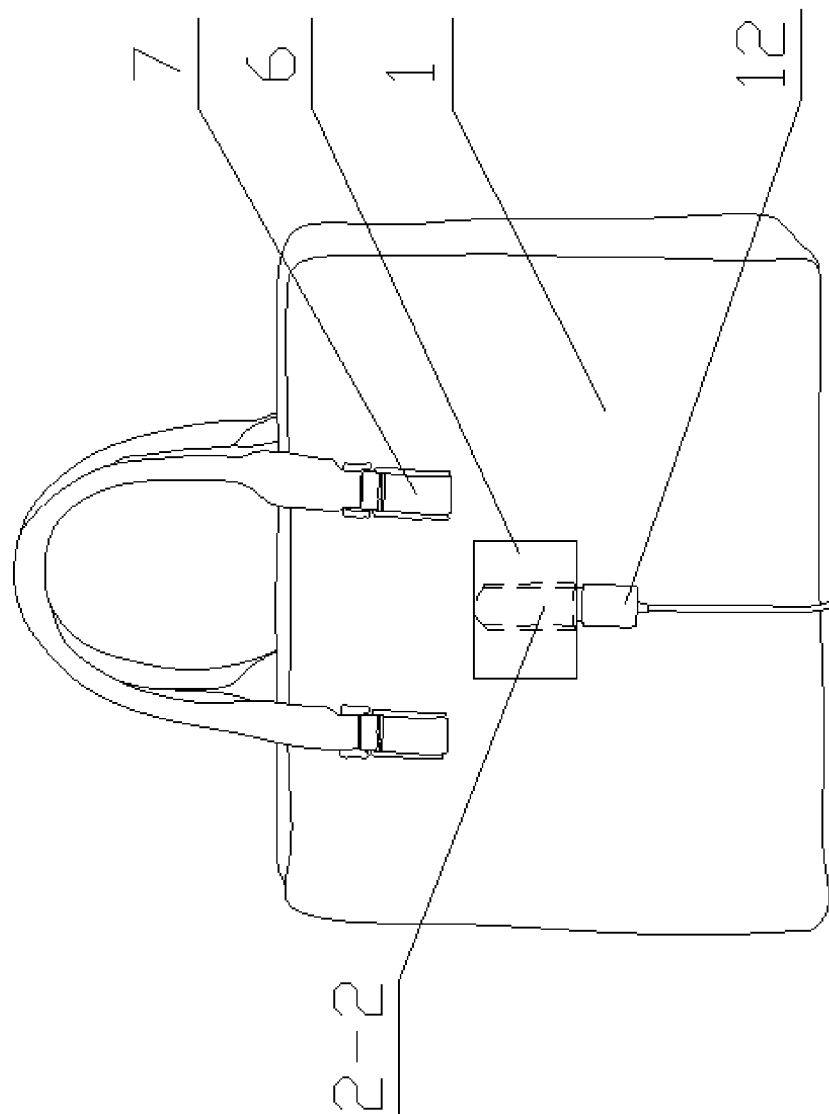
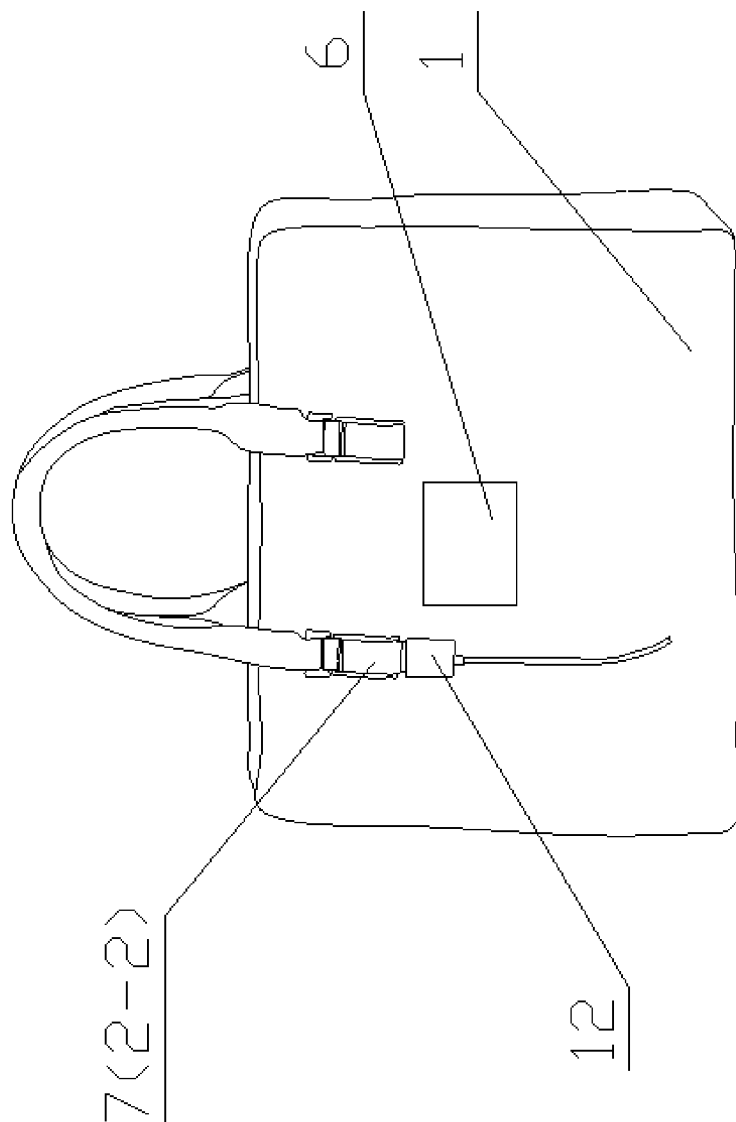


FIGURE 7



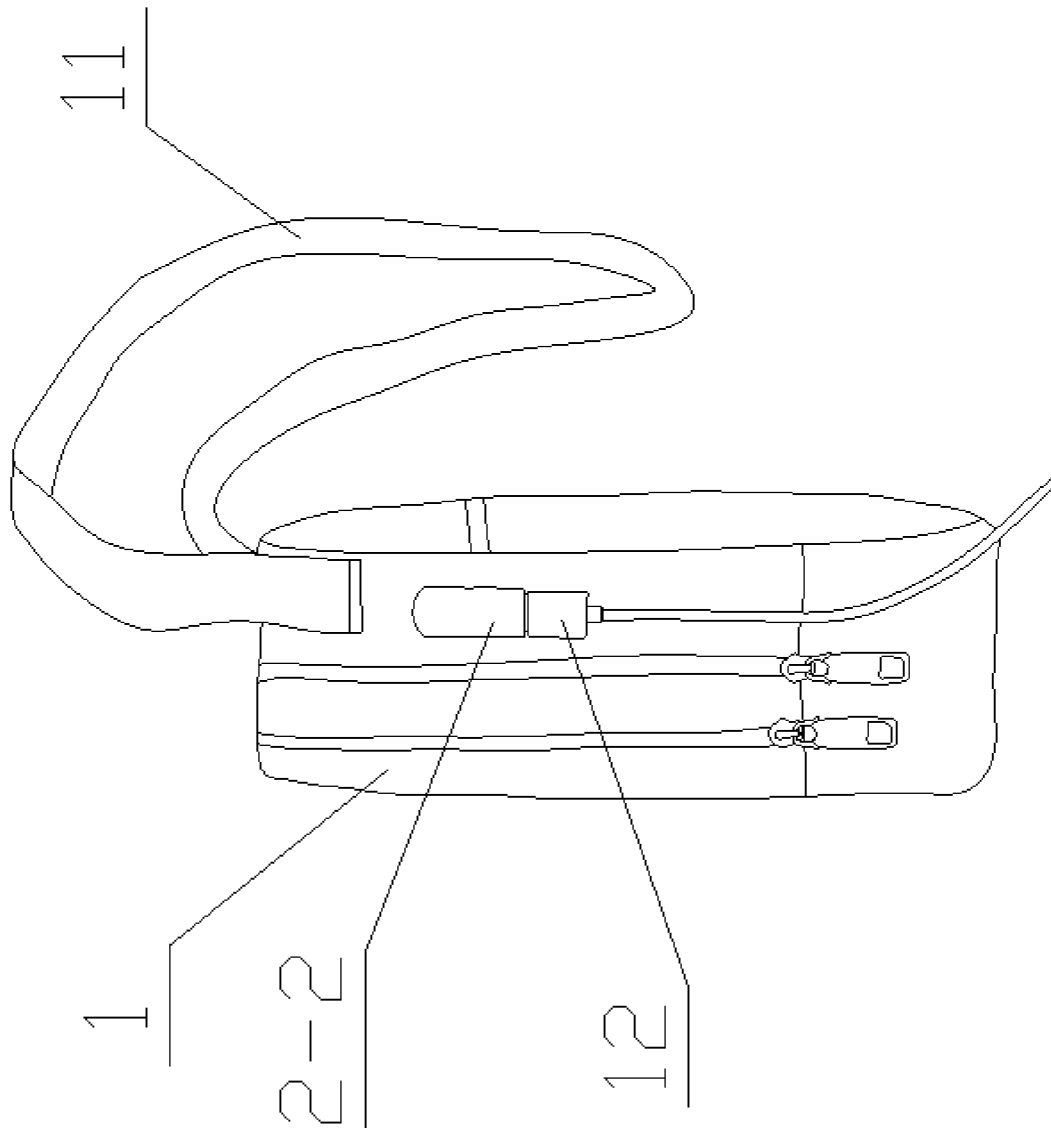


FIGURE 8

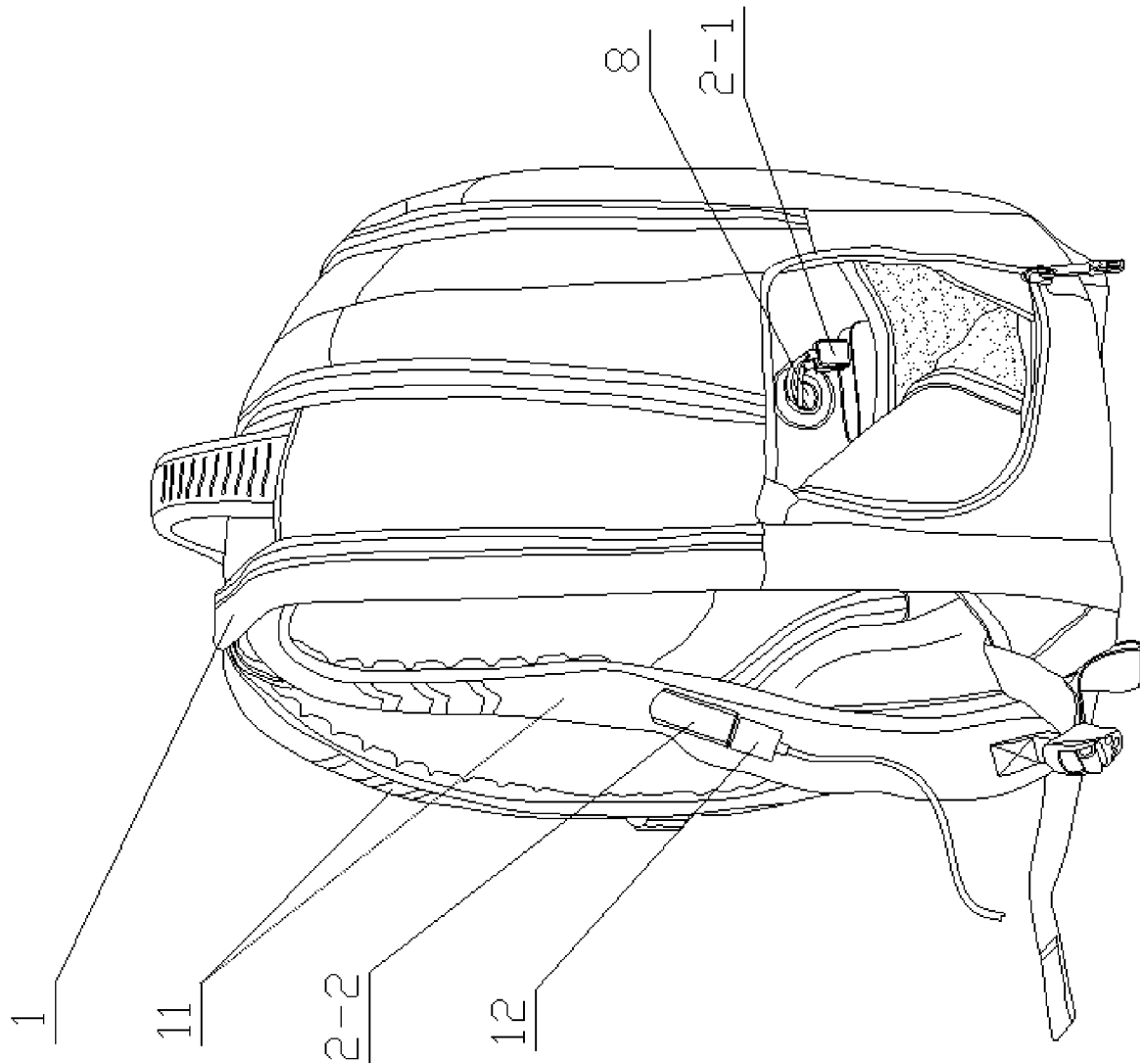
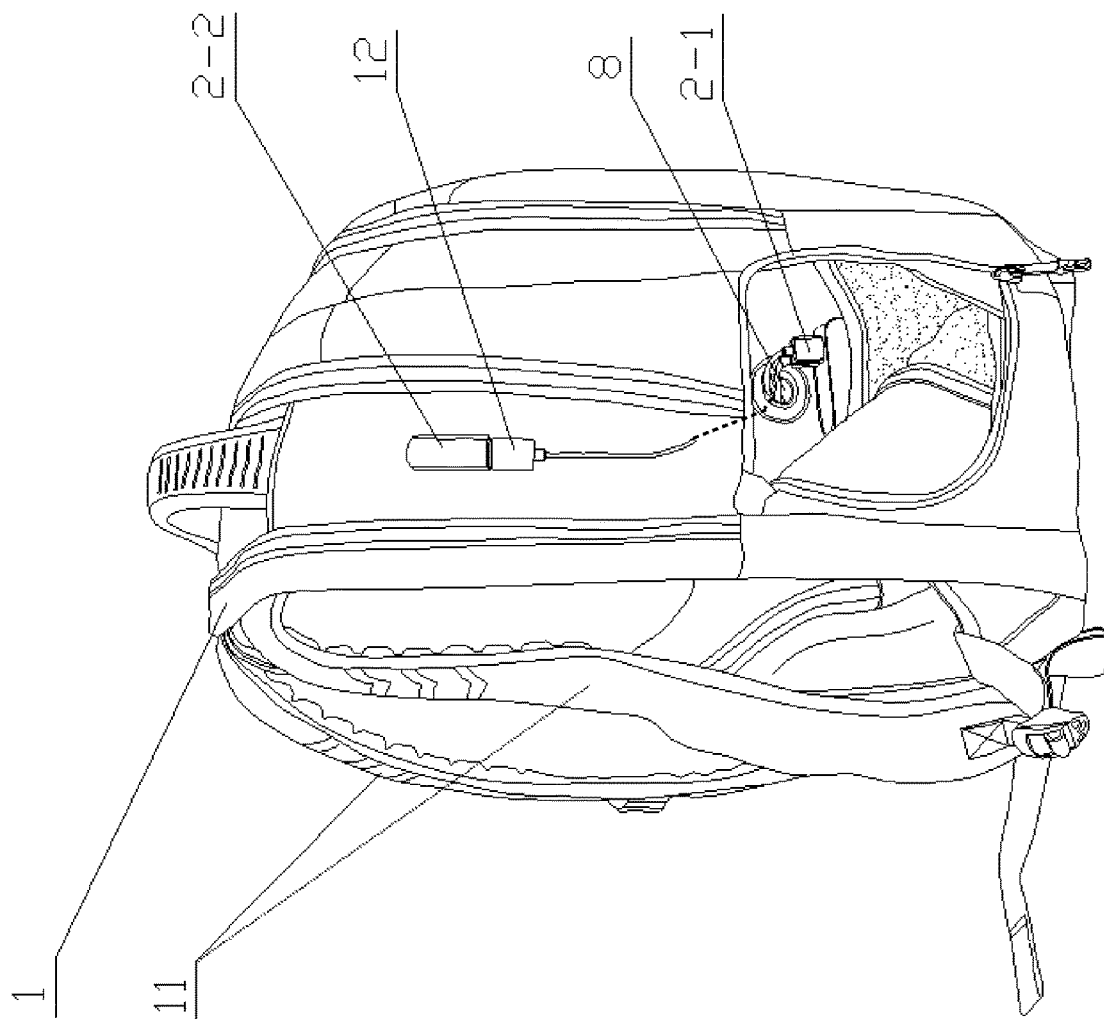


FIGURE 9

FIGURE 10



US 10,574,071 B2

1

**BAG OR LUGGAGE WITH USB CHARGING  
CONNECTOR**

## TECHNICAL FIELD

The present invention model relates to a bag or luggage, especially a bag or luggage for convenient charging of personal devices such as smart phones, tablets or any device that requires recharging.

## BACKGROUND OF THE INVENTION

Bags and luggage have become a necessity in our every-day lives, such as backpacks (student backpacks and outdoor backpacks), travel boxes, briefcases, lady handbags, shoulder bags and so on. With the constant development of our society, diverse portable digital devices are emerging in our lives, and we rely more and more on them, including tablet computers, cellphones, digital cameras, video cameras and the like. In addition to containing the stuff, people want more functionality from the bags and luggage. For example, charging the portable digital devices. Especially for tourists, field staff and those making long-term business trips, it is not easy to charge their digital devices when the battery is dying, causing a lot of inconvenience and trouble in their works and lives. The present bags and luggage are equipped with no charging function, or a portable power source is provided in a bag or luggage for charging. It is necessary to open the bag or luggage for charging, which is quite inconvenient.

## SUMMARY OF THE INVENTION

The present invention intends to overcome the disadvantages stated above, and provides a type of bag or luggage for convenient charging, which enables the user to charge a device or product needing to be charged conveniently at any time or any place during traveling, without necessarily opening the bag or luggage, nor taking out the power source for charging.

The present invention is realized in the following way: a type of bag or luggage for convenient charging, comprising the luggage body, wherein, a placing space for placing an electrical storage device is provided inside the bag or luggage body, and a power cable outlet on the outer surface of the bag or luggage body; the bag or luggage further comprises a USB extension cable on the body of the luggage, and the male connector of the USB extension cable is inside the bag or luggage body, which is used to connect to the electrical storage device in the electrical storage device placing space; the female connector is in the power cable outlet or exposed outside the power cable outlet, and the female connector may be equipped with a sheath for water proofing wrapped on the outer surface of the female connector.

During traveling, when the battery of the product to be charged is dying, it is only necessary to plug the charging interface of the product to be charged into the female connector of the USB extension cable, then the charging starts, without necessarily opening the bag or luggage, nor taking out the power source for charging.

The sheath may be further equipped with a dust cap for dust proofing.

The power cable outlet may be provided on the surface of the bag or luggage, the female connector is exposed outside the power cable outlet, and the dust cap is attached on the side of the female connector, which is overturning connected to the side of the female connector.

2

The power cable outlet may be provided in a groove on the side of the bag or luggage, and the dust cap may be at the opening of the groove, which is overturning connected to the groove.

The power cable outlet may be provided on any edge of the nameplate.

The power cable outlet may be provided on either side of the fastener.

For the convenience of the configuration of the USB extension cable, the bag or luggage body is provided with a cable laying channel from the power storage device placing space to the power cable outlet for the penetration of the USB extension cable.

In order to prevent the loss of the bag or luggage, the female connector of the USB extension cable is further equipped with a Bluetooth anti-lost alarm, which is used to connect to the Bluetooth device on the product to be charged.

For real-time positioning or location of the bag or luggage for convenient charging provided by the utility model, the female connector of the USB extension cable may be further equipped with a GPS device for positioning (or locating).

For the convenience of charging during traveling, the power cable outlet is on a shoulder strap of the bag.

Compared with the prior art, the utility model enjoys the following advantages: (1) The utility model provides a bag or luggage for convenient charging, which enables a user to charge a product needing to be charged conveniently at any time or any place during traveling, without necessarily opening the bag or luggage, nor taking out the power source for charging. In addition, the charging interface is featured with waterproof and dust-proof functions, resulting in reliable performance; (2) The bag or luggage for convenient charging provided by the utility model is equipped with a Bluetooth anti-lost alarm. When the user is at a certain distance away from the bag or luggage for convenient charging, the Bluetooth anti-lost alarm is going to send an alarm signal to remind the user, so that it is efficient to prevent the loss of the bag or luggage; (3) The bag or luggage for convenient charging provided by the utility model is further equipped with a GPS device for positioning, for real-time positioning the bag or luggage.

## BRIEF DESCRIPTION OF THE DRAWINGS

The utility model is further described as follows with reference to drawings and embodiments:

FIG. 1 is a structural schematic diagram of embodiment 1 of the utility model;

FIG. 2 is a structural schematic diagram of the USB extension cable of embodiment 2 of the utility model;

FIG. 3 is a structural schematic diagram of embodiment 3 of the utility model;

FIG. 4 is a structural schematic diagram of embodiment 4 of the utility model;

FIG. 5 is a structural schematic diagram of embodiment 5 of the utility model;

FIG. 6 is a structural schematic diagram of embodiment 6 of the utility model;

FIG. 7 is a structural schematic diagram of embodiment 7 of the utility model;

FIG. 8 is a structural schematic diagram of embodiment 8 of the utility model;

FIG. 9 is a structural schematic diagram of embodiment 9 of the utility model;

FIG. 10 is a structural schematic diagram of embodiment 10 of the utility model.

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Description of the symbols in the drawings: 1. bag or luggage body; 2. USB extension cable; 2-1. male connector; 2-2. female connector; 3. sheath; 4. duct cap; 5. groove; 6. nameplate; 7. fastener; 8. cable laying channel; 9. Bluetooth anti-lost alarm; 10. GPS device; 11. shoulder strap; 12. external USB connecting line; and power cable outlet 14.

#### DETAILED DESCRIPTION OF THE EMBODIMENTS

The content of the utility model is further described in detail as follows with reference to the drawings for specification and specific embodiments.

FIG. 1 shows embodiment 1 of the utility model, which is a backpack comprising the bag body 1, wherein, a placing space for placing an electrical storage device (which is not shown in the drawing) is provided inside the bag body 1, and a power cable outlet on the side of the bag body 1; the bag further comprises a USB extension cable 2 on the bag body 1, and the male connector 2-1 of the USB extension cable 2 is connected to the power storage device in the power storage device placing space; the female connector 2-2 is exposed outside the power cable outlet, and the female connector 2-2 is equipped with a sheath 3 for water proofing wrapped on the outer surface of the female connector 2-2; the male connector 2-2 is further equipped with a Bluetooth anti-lost alarm 9, which is used to connect to the Bluetooth device on the product to be charged, and a GPS device 10 for positioning.

During traveling, when the battery of the product to be charged is dying, it is only necessary to plug the external USB connecting line 12 to the female connector 2-2 of the USB extension cable 2, then the charging starts, without necessarily opening the bag or luggage, nor taking out the power source for charging.

FIG. 2 shows embodiment 2 of the utility model, which is different to the embodiment 1 that the sheath 3 is further equipped with a dust cap 4 for dust proofing, and the dust cap 4 is attached on the operative end (16) of the female connector 2-2, which is overturning connected to the side of the female connector 2-2. As can be seen the sheath does not cover the operative end of the female connector, but the removable dust cap 4 does. The term operative end (16) refers to the end of the female connector that receives the male connector.

FIG. 3 shows embodiment 3 of the utility model, which is a rod box comprising the box body 1, wherein, a placing space for placing an electrical storage device (which is not shown in the drawing) is provided inside the box body 1, and a power cable outlet on the side of the box body 1; the box further comprises a USB extension cable 2 on the box body 1, and the male connector 2-1 of the USB extension cable 2 is connected to the power storage device in the power storage device placing space; the female connector 2-2 is exposed outside the power cable outlet, and the female connector 2-2 is equipped with a sheath 3 for water proofing wrapped on the outer surface of the female connector 2-2, and the external USB connecting line 12 connected to the female connector 2-2.

FIG. 4 shows embodiment 4 of the utility model, which is a gentlemen handbag comprising the bag body 1, wherein a placing space for placing an electrical storage device (which is not shown in the drawing) is provided inside the bag body 1, and a power cable outlet (which is not shown in the drawing) on the surface of the bag body 1; the bag further comprises a USB extension cable 2 on the bag body 1, and the male connector 2-1 of the USB extension cable 2 is

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connected to the power storage device in the power storage device placing space; the female connector 2-2 is exposed outside the power cable outlet, and the female connector 2-2 is equipped with a sheath 3 for water proofing wrapped on the outer surface of the female connector 2-2.

FIG. 5 shows embodiment 5 of the utility model, which is a lady handbag comprising the bag body 1, wherein, a placing space for placing an electrical storage device (which is not shown in the drawing) is provided inside the bag body 1, and a power cable outlet at the bottom on the side of the bag body 1; the bag further comprises a USB extension cable 2 on the bag body 1, and the male connector 2-1 of the USB extension cable 2 is connected to the power storage device in the power storage device placing space; the female connector 2-2 is at the power cable outlet 14, and the dust cap 4 is at the opening of the groove 5, which is overturning connected to the groove 5.

FIG. 6 shows embodiment 6 of the utility model, which is a briefcase comprising the case body 1, wherein, a placing space for placing an electrical storage device (which is not shown in the drawing) is provided inside the case body 1, and a power cable outlet at the bottom on the side of the case body 1; the case further comprises a USB extension cable 2 on the case body 1, and the male connector 2-1 of the USB extension cable 2 is connected to the power storage device in the power storage device placing space; the power cable outlet is below the nameplate 6, and the female connector 2-2 is at the power cable outlet.

FIG. 7 shows embodiment 7 of the utility model, which is a briefcase. The difference between this embodiment and the embodiment 6 is that: the power cable outlet is below the fastener 7, and the female connector 2-2 is in the power cable outlet.

FIG. 8 shows embodiment 8 of the utility model, which is a shoulder bag comprising the bag body 1, wherein, a placing space for placing an electrical storage device (which is not shown in the drawing) is provided inside the bag body 1, and a power cable outlet on the side of the bag body 1; the bag further comprises a USB extension cable 2 on the bag body 1, and the male connector 2-1 of the USB extension cable 2 is connected to the power storage device in the power storage device placing space; the female connector 2-2 is exposed outside the power cable outlet, and the female connector 2-2 is equipped with a sheath 3 for water proofing wrapped on the outer surface of the female connector 2-2.

FIG. 9 shows embodiment 9 of the utility model, which is an outdoor backpack comprising the bag body 1, wherein, a placing space for placing an electrical storage device is provided inside the bag body 1, and a power cable outlet on a shoulder strap of the bag body 1; the bag further comprises a USB extension cable 2 on the bag body 1, and the male connector 2-1 of the USB extension cable 2 is connected to the power storage device in the power storage device placing space; the female connector 2-2 is exposed outside the power cable outlet, and the female connector 2-2 is equipped with a sheath 3 for water proofing wrapped on the outer surface of the female connector 2-2; the bag or luggage body 1 is provided with a cable laying channel 8 from the power storage device placing space to the power cable outlet for the penetration of the USB extension cable 2.

FIG. 10 shows the embodiment 10 of the utility model, which is an outdoor backpack. The difference between this embodiment and the embodiment 9 is that: the power cable outlet is on the side of the bag body 1.

With reference to the claims, the present invention provides a bag or luggage for convenient charging, comprising: a luggage body (1) having a placing space for placing a

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power storage device inside the luggage body and a power cable outlet on the outer surface of the luggage body (1); a USB extension cable (2) having a male connector (2-1) and a female connector (2-2) on the luggage body (1), wherein the male connector (2-1) of the USB extension cable is inside the luggage body (1) and is used to connect to the power storage device in the placing space; wherein the female connector (2-2) is in the power cable outlet or exposed outside the power cable outlet, and the female connector (2-2) is equipped with a sheath (3) wrapped on the outer surface of the female connector (2-2) for water proofing. The term "luggage body" includes any bag, bag body, purse, backpack, luggage or the like. The placing space would typically be a pocket on the inside of the luggage body that holds the power storage device. The power storage device may be any device capable of charging a device. The sheath (3) may be further equipped with a dust cap (4) for dust proofing. The power cable outlet is provided on the surface of the luggage body, the female connector (2-2) is exposed outside the power cable outlet, and the dust cap (4) is attached on the side of the female connector (2-2). The power cable outlet may be provided in a groove (5) on the side of the luggage body, the female connector is in the power cable outlet, and the dust cap is at the opening of the groove and connected to the groove. The power cable outlet may be provided on any edge of a nameplate (6). The power cable outlet is provided on either side of a fastener (7). The luggage body may be provided with a cable laying channel (8) from the power storage device placing space to the power cable outlet for the penetration of the USB extension cable (2). The male connector of the USB extension cable is further equipped with a wireless technology standard for exchanging data over short distances (e.g. Bluetooth™) as an anti-loss alarm (9), which is used to connect to the device on the product to be charged. The Bluetooth™ on the USB extension cable would connect with the Bluetooth™ on, for example, a phone and could be used to locate the luggage body. The male connector of the USB extension cable may be further equipped with a GPS device (10) for positioning. The term positioning may be interchanged with locating. The power cable outlet may be on a shoulder strap (11) of the bag.

The specific embodiments above are only detailed explanation on the technical solutions of the utility model, and the utility model is not limited only by the embodiments above. Any improvement or replacement based on the principle of the utility model shall be within the protection scope defined in claims of the utility model.

I claim:

1. A bag or luggage for convenient charging, comprising:  
a bag or luggage body having a placing space for placing a power storage device inside the bag or luggage body and a power cable outlet on the outer surface of the bag or luggage body;  
a USB extension cable having a male connector and a female connector having four sides and an operative end,  
wherein the male connector of the USB extension cable is inside the bag or luggage body and is used to connect to the power storage device in the placing space;  
wherein the female connector is retained outside and adjacent to the power cable outlet with one side of the four sides of the female connector in communication with the bag or luggage body, and the other three sides of the female connector are covered by a water proof sheath that protects the female connector and provides

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it in a flat position and wherein the sheath is above and covers the power cable outlet,

wherein the sheath does not cover the operative end of the female connector which is exposed and fixedly attached above the exterior of the bag such that the operative end of the female connector does not need to be moved and the bag or luggage body does not need to be opened to accept a charging interface of a product to be charged.

2. The bag or luggage for convenient charging according to claim 1, wherein the sheath is further equipped with a dust cap for dust proofing and the dust cap is movable to cover and uncover the operative end of the female connector.

3. The bag or luggage for convenient charging according to claim 2, wherein the power cable outlet is provided on the surface of the bag or luggage body, the female connector is exposed outside the power cable outlet, and the dust cap is attached on the side of the female connector.

4. The bag or luggage for convenient charging according to claim 1, wherein the power cable outlet is provided on any edge of a nameplate.

5. The bag or luggage for convenient charging according to claim 1, wherein the power cable outlet is provided on either side of a fastener.

6. The bag or luggage for convenient charging according to claim 1, wherein the bag or luggage body is provided with a cable laying channel from the power storage device placing space to the power cable outlet for the penetration of the USB extension cable.

7. The bag or luggage for convenient charging according to claim 1, wherein at least one of the male connector and the female connector of the USB extension cable is further equipped with a wireless technology standard for exchanging data over short distances as an anti-loss alarm, which is used to connect to the device on the product to be charged.

8. The bag or luggage for convenient charging according to claims 1, wherein at least one of the male connector and the female connector of the USB extension cable is further equipped with a GPS device for positioning.

9. The bag or luggage for convenient charging according to claim 1, wherein the power cable outlet is on a shoulder strap of the bag or a side panel or a front part of the bag or luggage.

10. A bag or luggage for convenient charging, comprising:  
a bag or luggage body having a placing space for placing a power storage device inside the bag or luggage body and a power cable outlet on the outer surface of the bag or luggage body and a cable laying channel from the placing space to the power cable outlet for the penetration of a USB extension cable having a male connector and a female connector on the bag or luggage body having four sides and an operative end;

wherein the male connector of the USB extension cable is inside the bag or luggage body and is used to connect to the power storage device in the placing space;

wherein the female connector is retained outside and adjacent to the power cable outlet with one side of the four sides of the female connector in communication with the bag or luggage body, and the other three sides of the female connector are covered by a waterproof sheath that protects the female connector and provides it in a flat position, wherein the sheath is above and covers the power cable outlet, wherein the sheath does not cover the operative end of the female connector which is exposed and fixedly attached above the exterior of the bag such that the operative end of the female connector does not need to be moved and the bag or



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luggage body does not need to be opened to accept a charging interface of a product to be charged.

11. The bag or luggage for convenient charging according to claim 10, wherein the sheath is further equipped with a dust cap for dust proofing and the dust cap is movable to cover and uncover the operative end of the female connector. 5

12. The bag or luggage for convenient charging according to claim 10, wherein the power cable outlet is provided on the surface of the bag or luggage body, the female connector is exposed outside the power cable outlet, and a dust cap is attached on the side of the female connector. 10

13. The bag or luggage for convenient charging according to claim 10, wherein, the power cable outlet is provided on any edge of a nameplate.

14. The bag or luggage for convenient charging according to claim 10, wherein the power cable outlet is provided on either side of a fastener. 15

15. The bag or luggage for convenient charging according to claim 10, wherein at least one of the male connector and the female connector of the USB extension cable is further equipped with a wireless technology standard for exchanging data over short distances as an anti-loss alarm, which is used to connect to the device on the product to be charged. 20

16. The bag or luggage for convenient charging according to claim 10, wherein at least one of the male connector and the female connector of the USB extension cable is further equipped with a GPS device for positioning. 25

17. The bag or luggage for convenient charging according to claim 10, wherein the power cable outlet is on a shoulder strap of the bag. 30

\* \* \* \* \*

# EXHIBIT B



US010931138B2

(12) **United States Patent**  
**Zhijian**

(10) **Patent No.:** **US 10,931,138 B2**

(45) **Date of Patent:** **\*Feb. 23, 2021**

(54) **SHEATH FOR USB CHARGER**

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(71) Applicant: **Li Zhijian**, Fujian (CN)

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(72) Inventor: **Li Zhijian**, Fujian (CN)

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(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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This patent is subject to a terminal disclaimer.

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*Primary Examiner* — Drew A Dunn

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*Assistant Examiner* — Sailesh Thapa

(65) **Prior Publication Data**

(74) *Attorney, Agent, or Firm* — Jennifer Meredith, Esq.;  
Meredith Attorneys, PLLC

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(51) **Int. Cl.**

**H02J 7/34** (2006.01)

**H02J 7/00** (2006.01)

(52) **U.S. Cl.**

CPC ..... **H02J 7/342** (2020.01); **H02J 7/0042** (2013.01); **H02J 7/00** (2013.01)

(58) **Field of Classification Search**

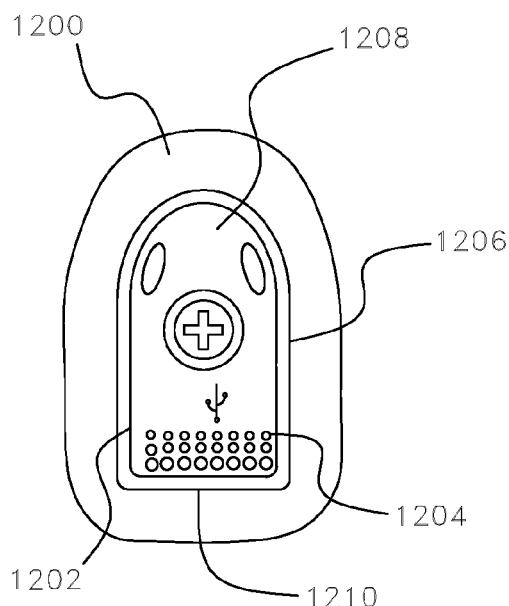
CPC ..... H02J 7/0042; H02J 7/0044; H02J 7/0045;  
H02J 3/322; H02J 7/0013; H02J 7/0014;  
H02J 7/0016; H02J 7/0018; H02J 7/0019;  
H02J 7/0024; H02J 7/0025; H02J 7/00;  
H02J 7/0077; H02J 7/0085; H02J 7/0088;

(Continued)

**ABSTRACT**

A sheath for convenient charging having a left side, a right side and a top side, a first closed end, a second open end and a surrounding bottom portion surrounding at least a portion of the sides and ends of the sheath. At least a portion of the sheath extends above an outer surface of a body, wherein the body has an inner surface, an outer surface and an opening between the inner surface and the outer surface. The sheath is at the opening and the sheath receives a female end of a USB cable having four sides, an operative end, a cord end and a cord. The operative end of the female end of the USB cable is retained in the second open end of the sheath and the cord end of the female end of the USB cable is retained in the first closed end of the sheath to provide the female end of the UBS cable in a flat position with the operative end of the female connector being uncovered and above the outer surface of the body and the cord of the female end goes through the opening between the inner surface and the outer surface and the surrounding bottom portion is attached to a portion of the body.

**24 Claims, 26 Drawing Sheets**



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(58) **Field of Classification Search**

CPC .. H01M 10/425; H01M 2220/00; H01M 2/02;  
H01M 2/1022

See application file for complete search history.

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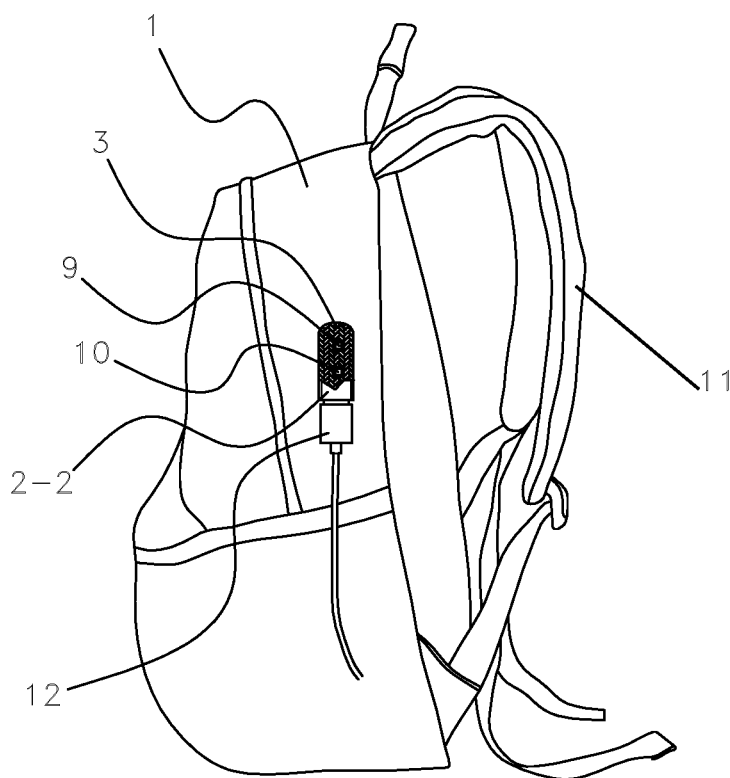


Fig. 1

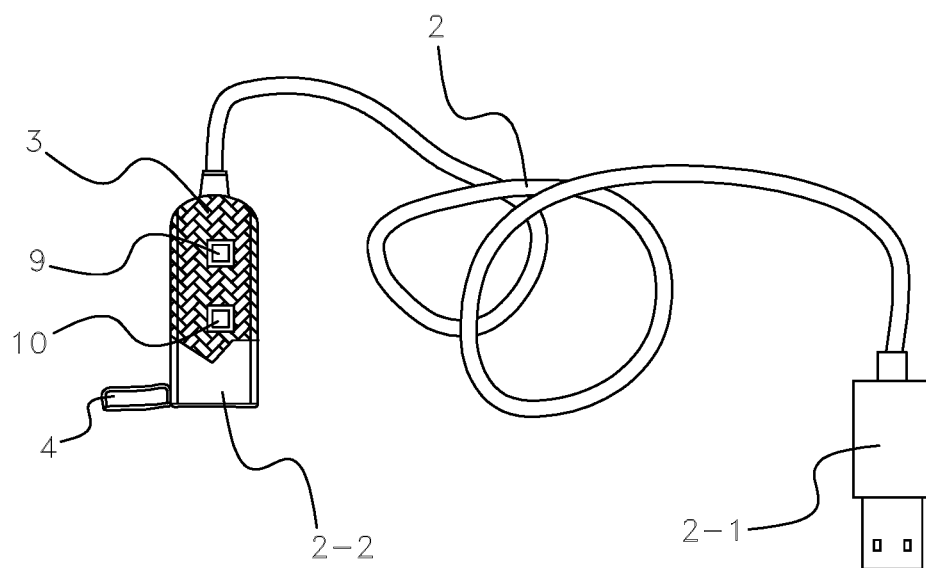


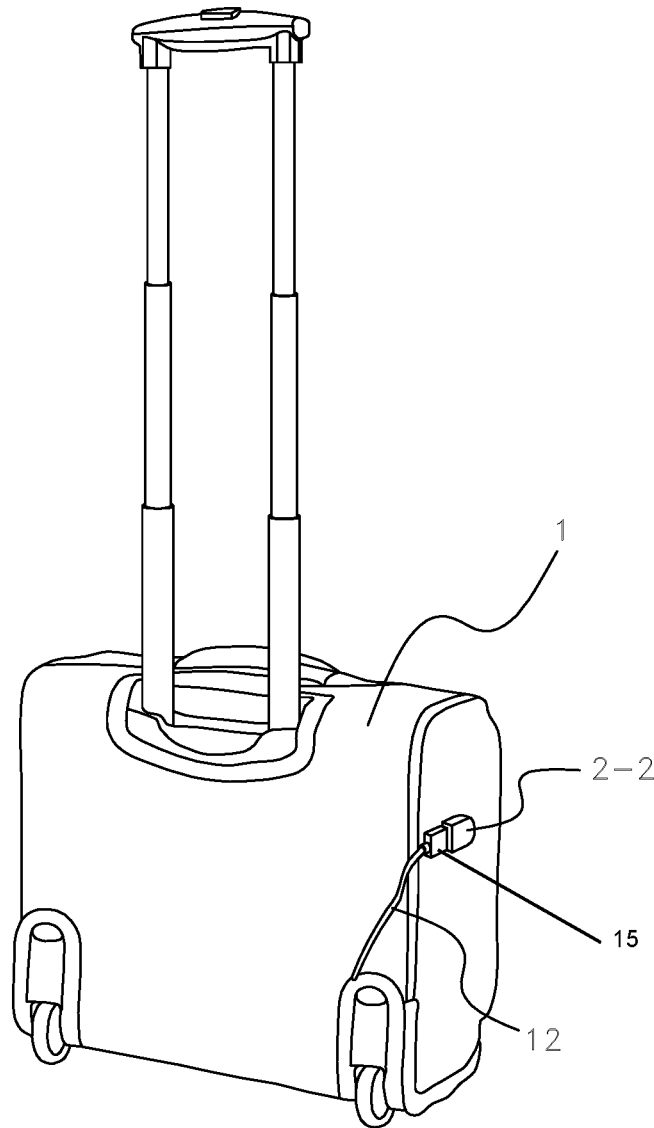
Fig. 2

**U.S. Patent**

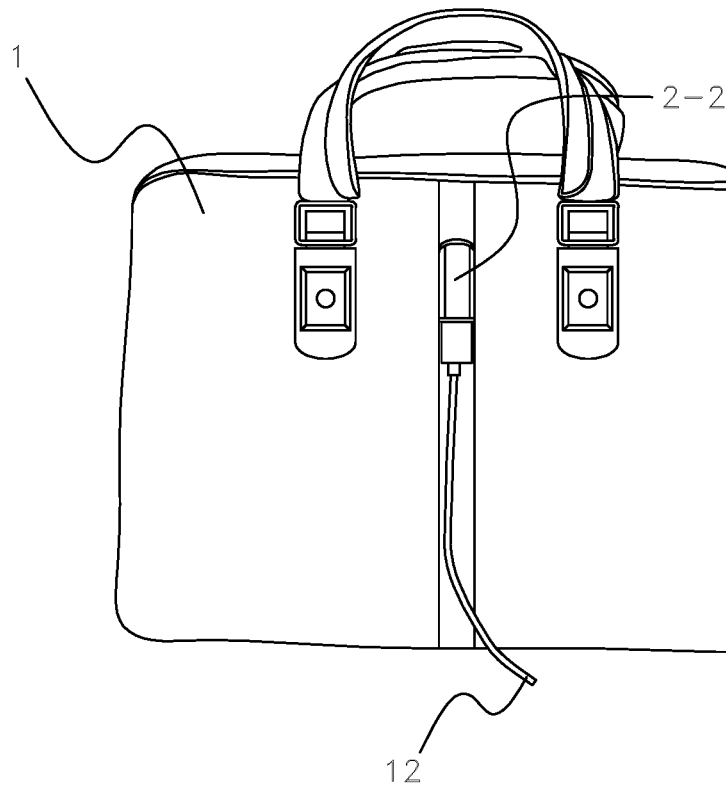
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**Fig. 3**



**Fig. 4**



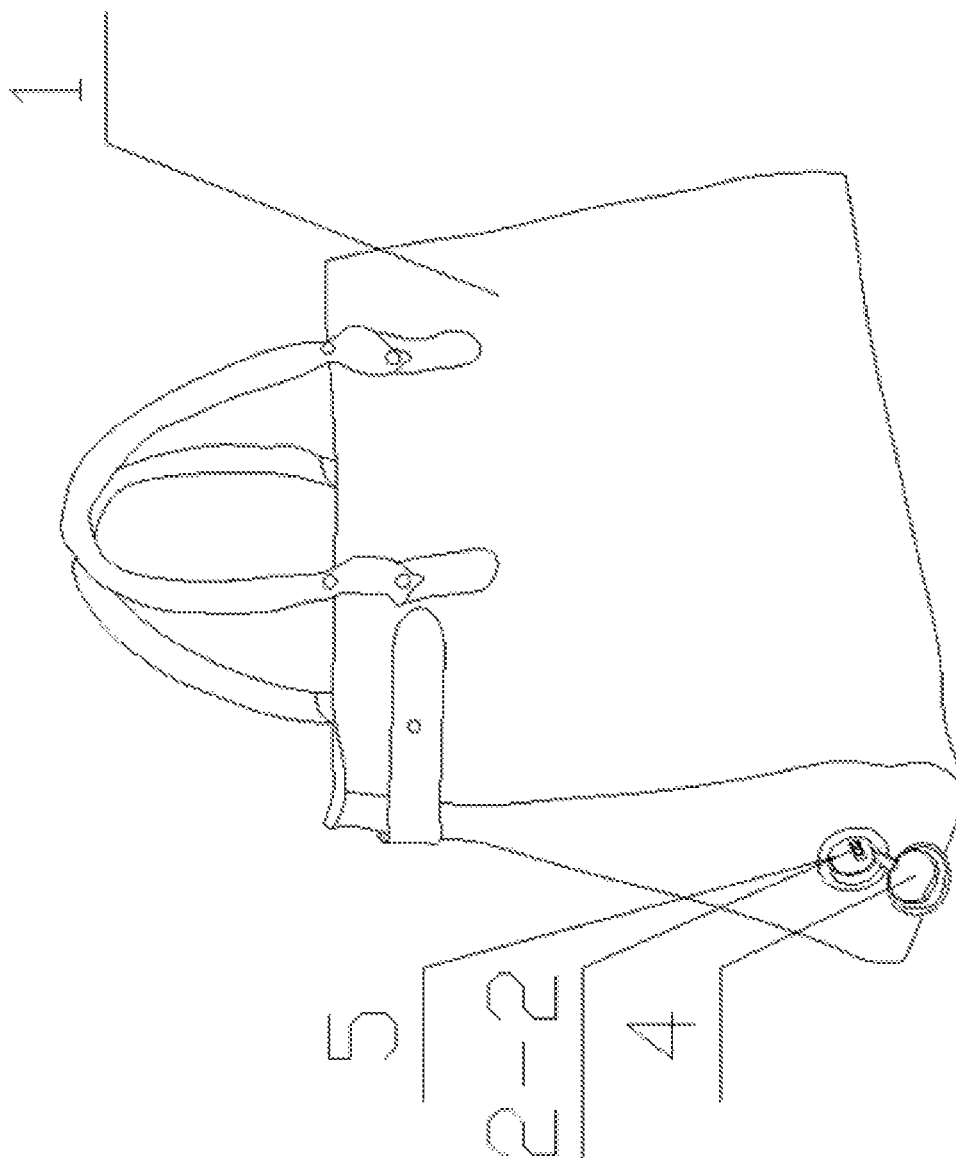


FIGURE 5



Figure 6

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Figure 7

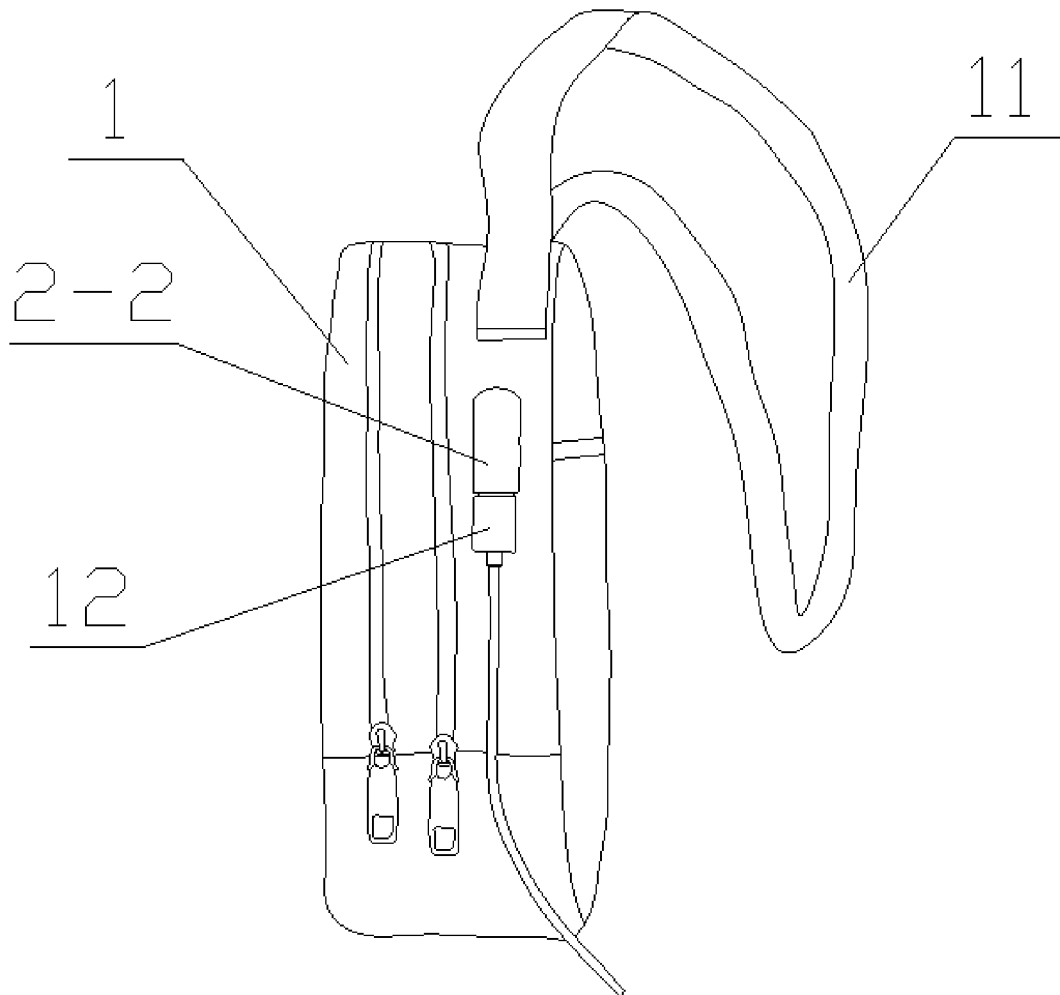


Figure 8

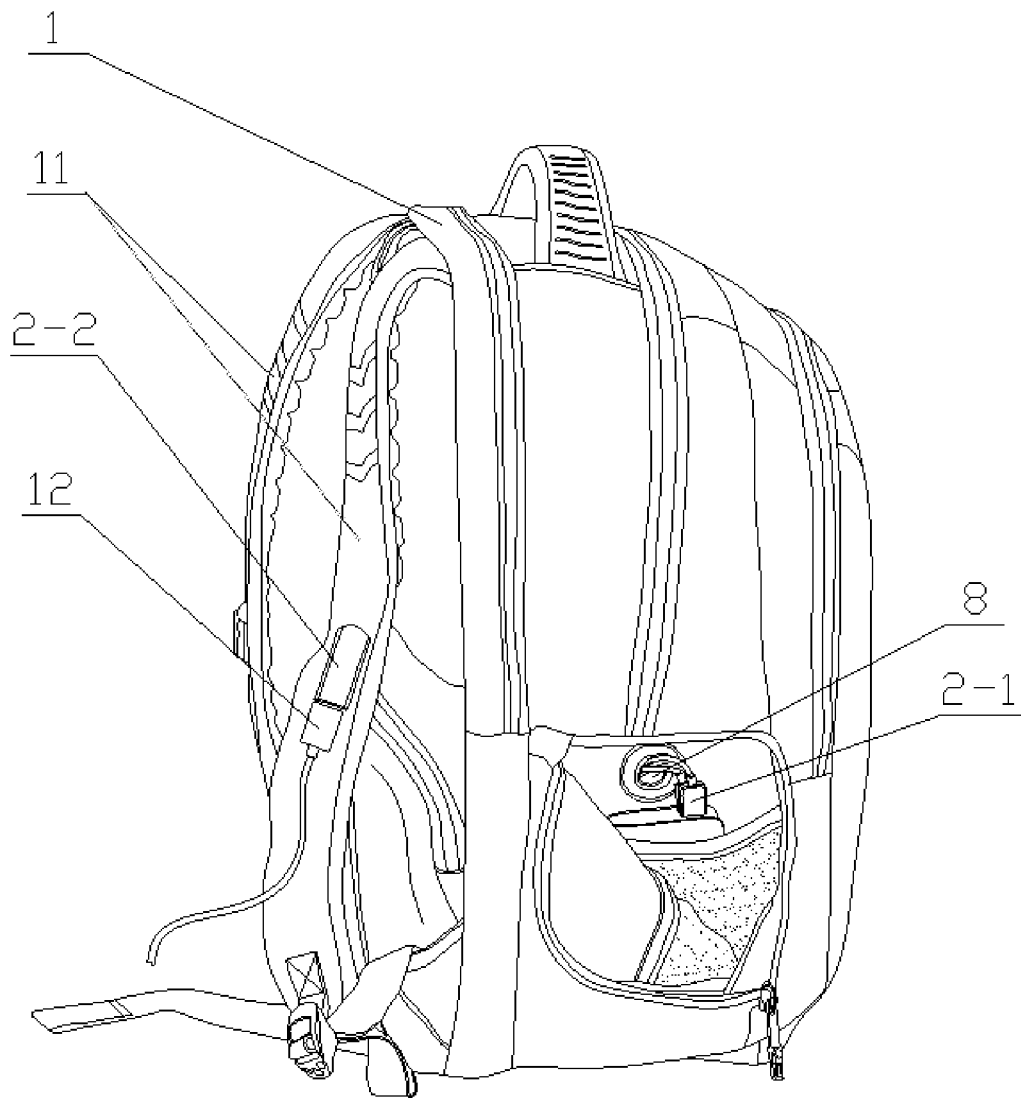


Figure 9

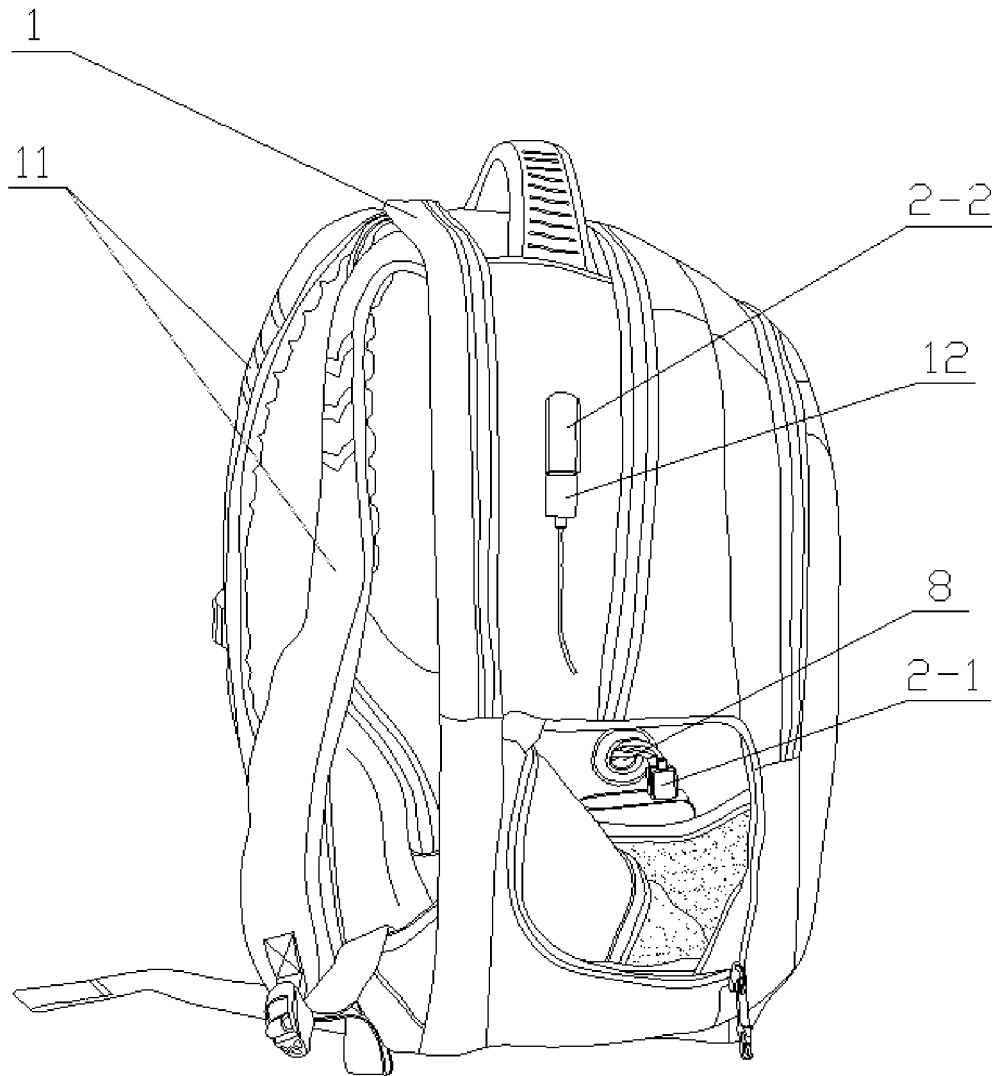


Figure 10

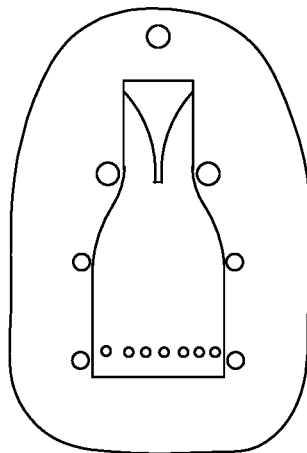


Fig. 11

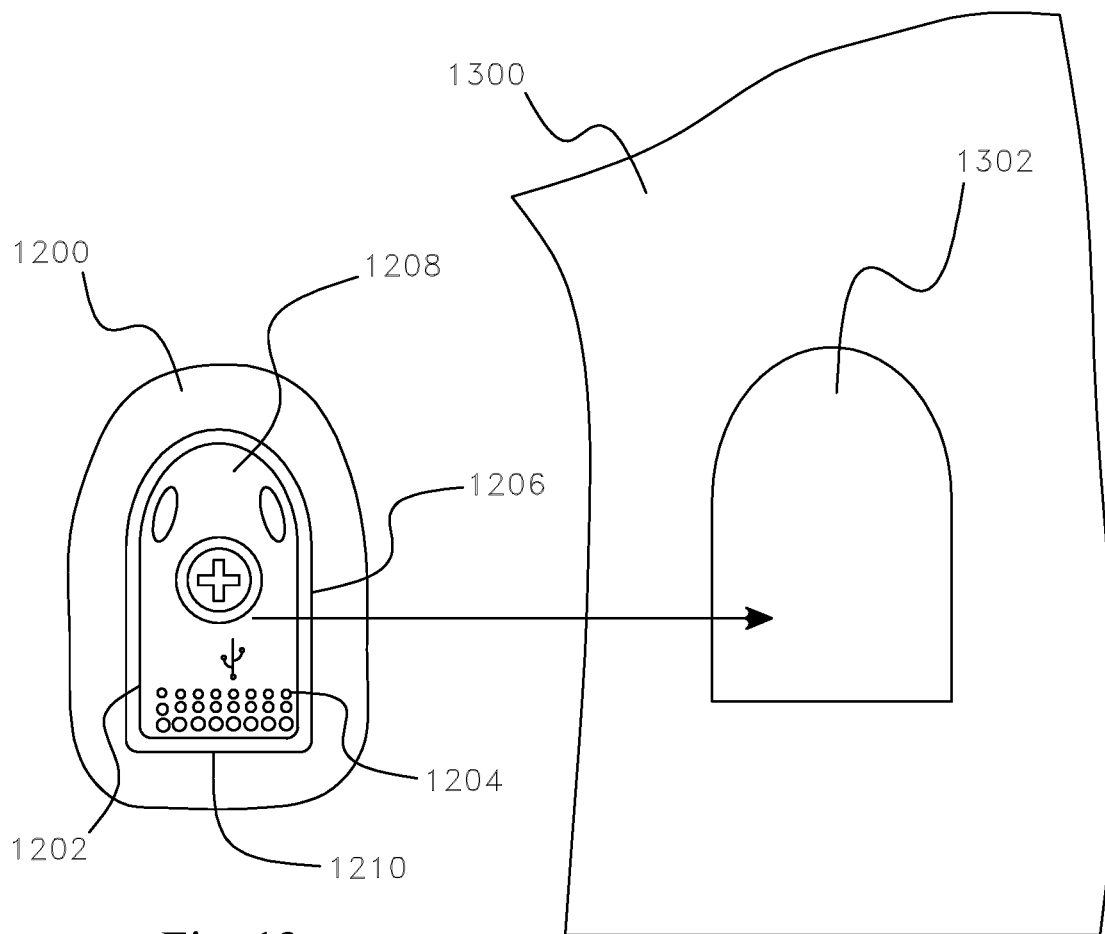


Fig. 12

Fig. 13

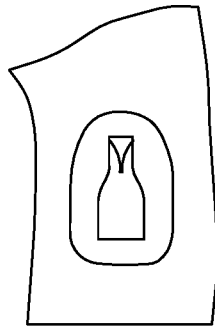


Fig. 14

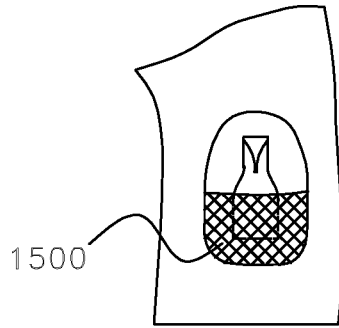


Fig. 15

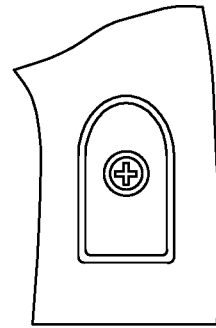


Fig. 16

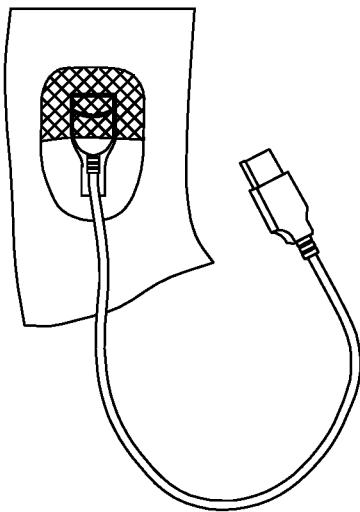


Fig. 17

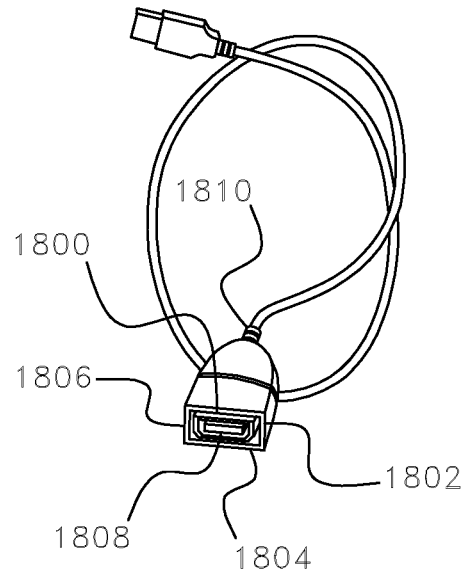


Fig. 18



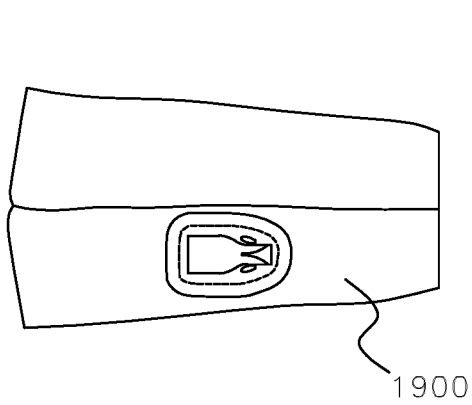


Fig. 19

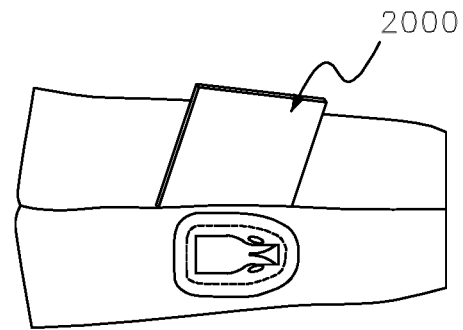


Fig. 20

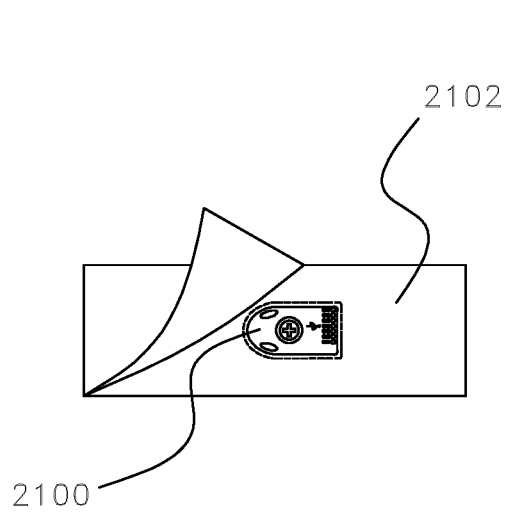


Fig. 21

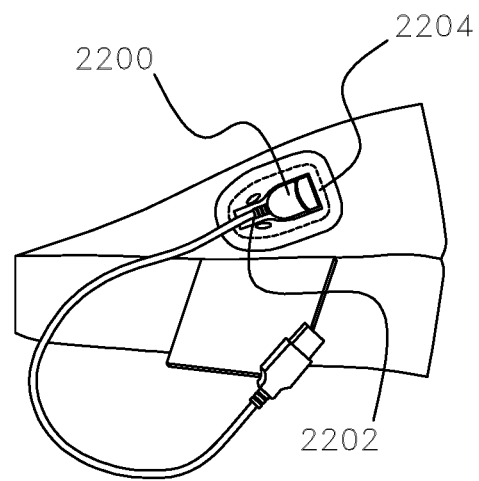


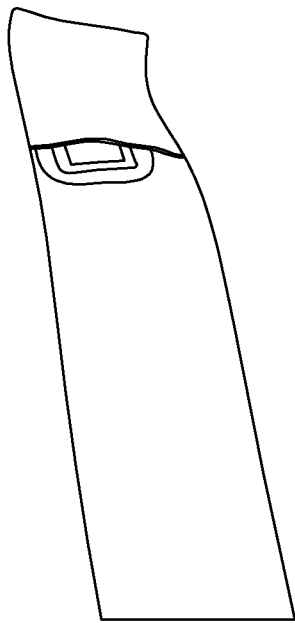
Fig. 22

**U.S. Patent**

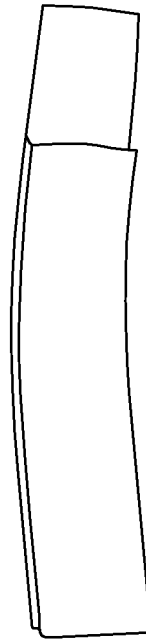
**Feb. 23, 2021**

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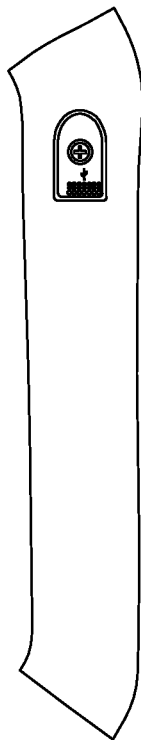
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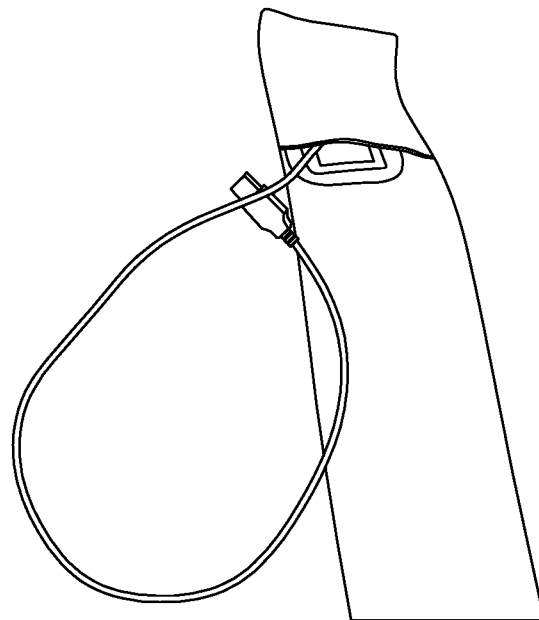
**Fig. 23**



**Fig. 24**



**Fig. 25**



**Fig. 26**

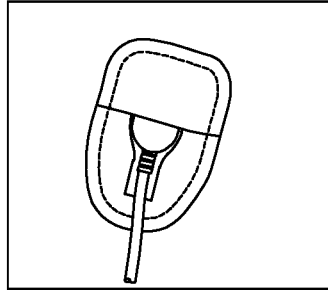


Fig. 27

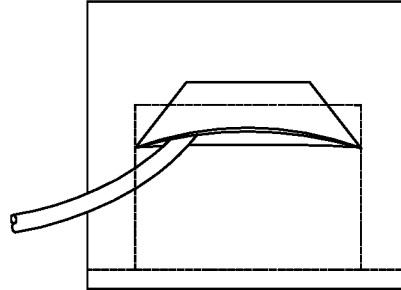


Fig. 28

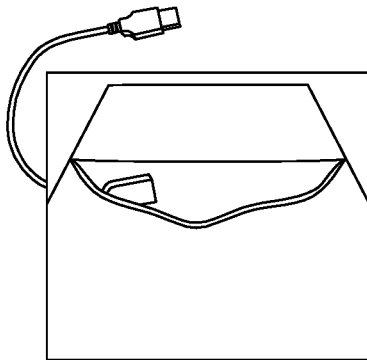


Fig. 29

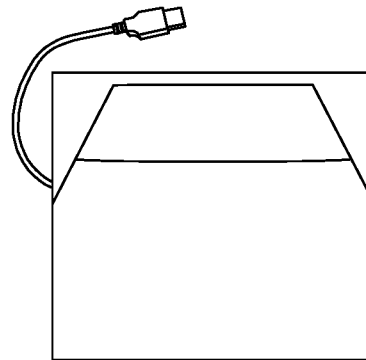


Fig. 30

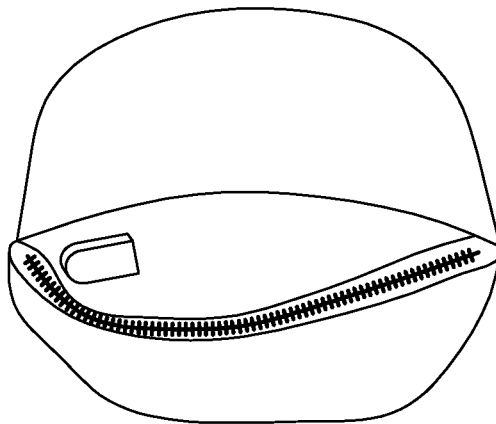


Fig. 31

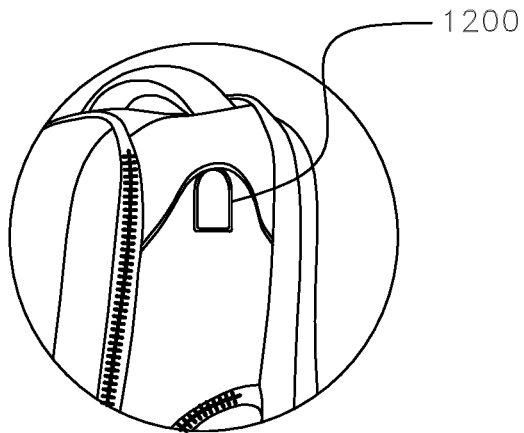


Fig. 32

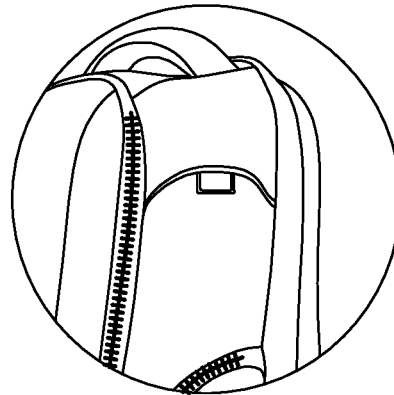


Fig. 33

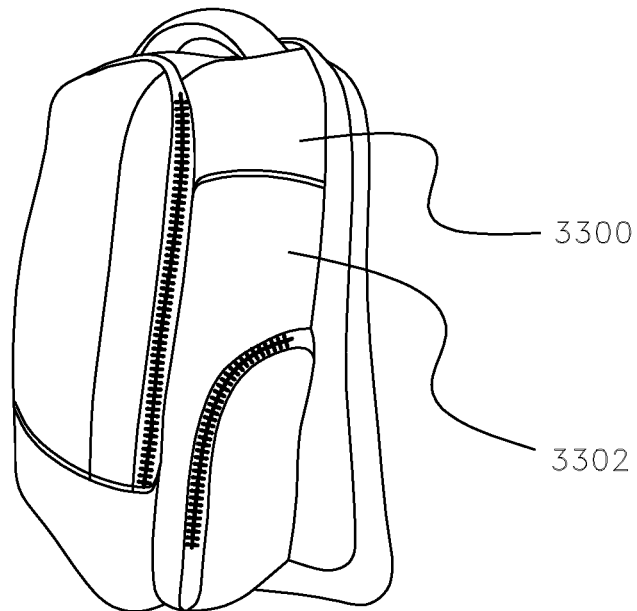


Fig. 34

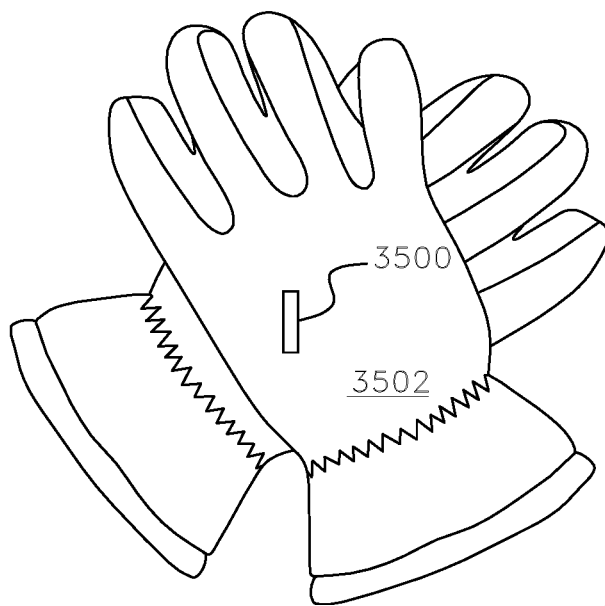


Fig. 35



Fig. 36



Fig. 37

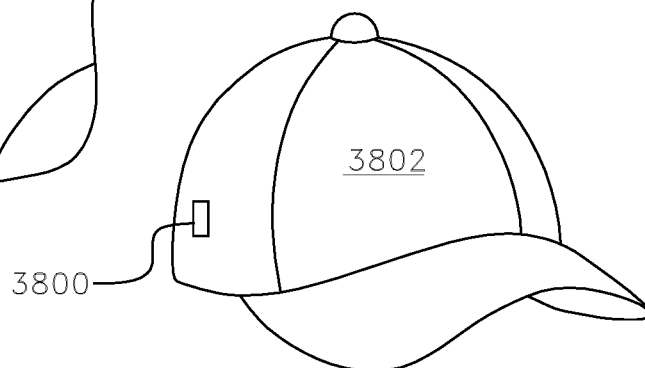


Fig. 38

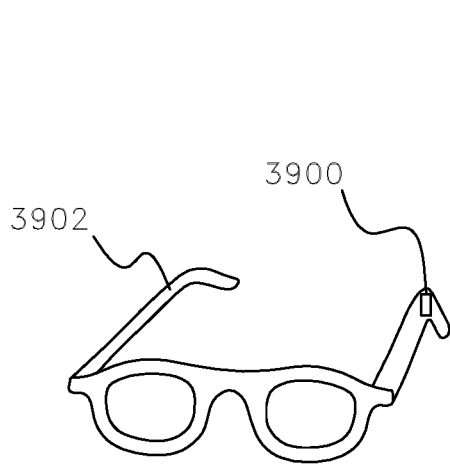


Fig. 39

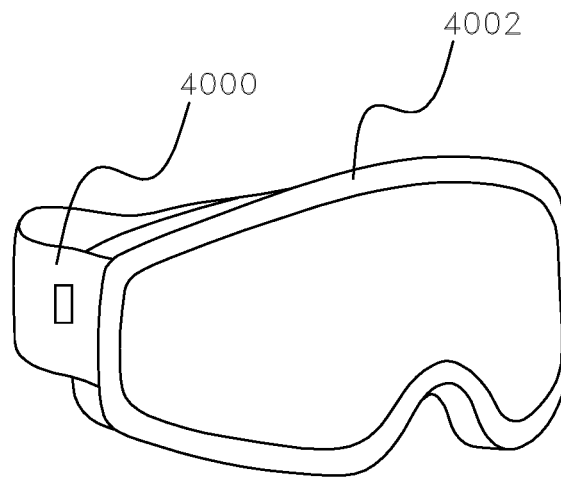


Fig. 40

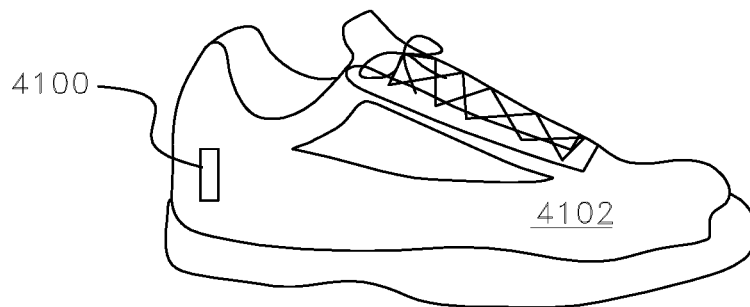


Fig. 41

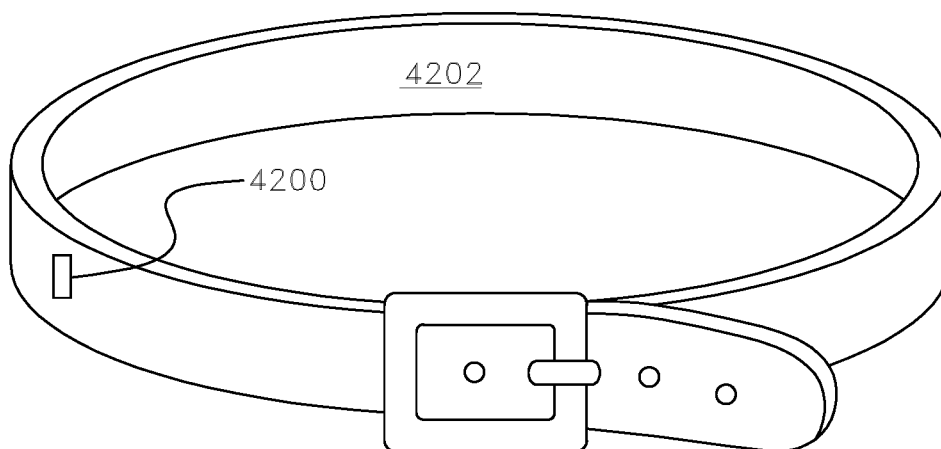


Fig. 42

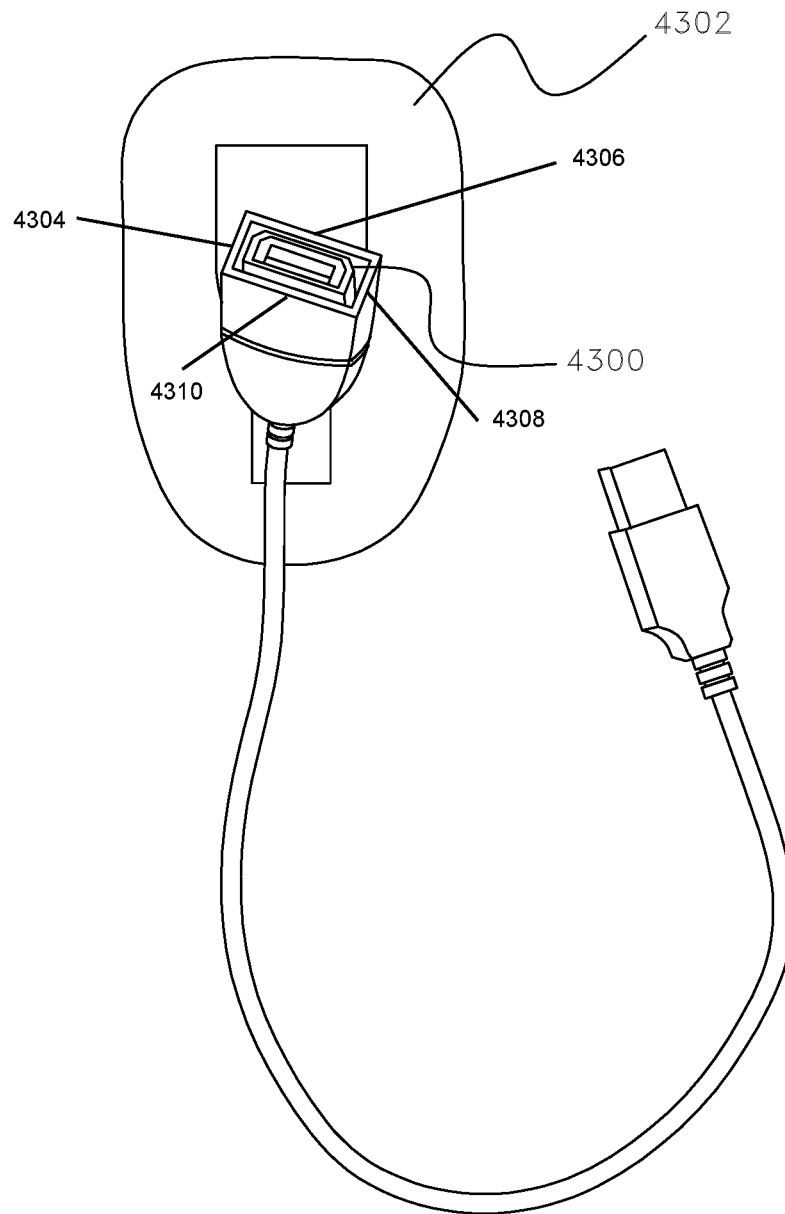


Fig. 43

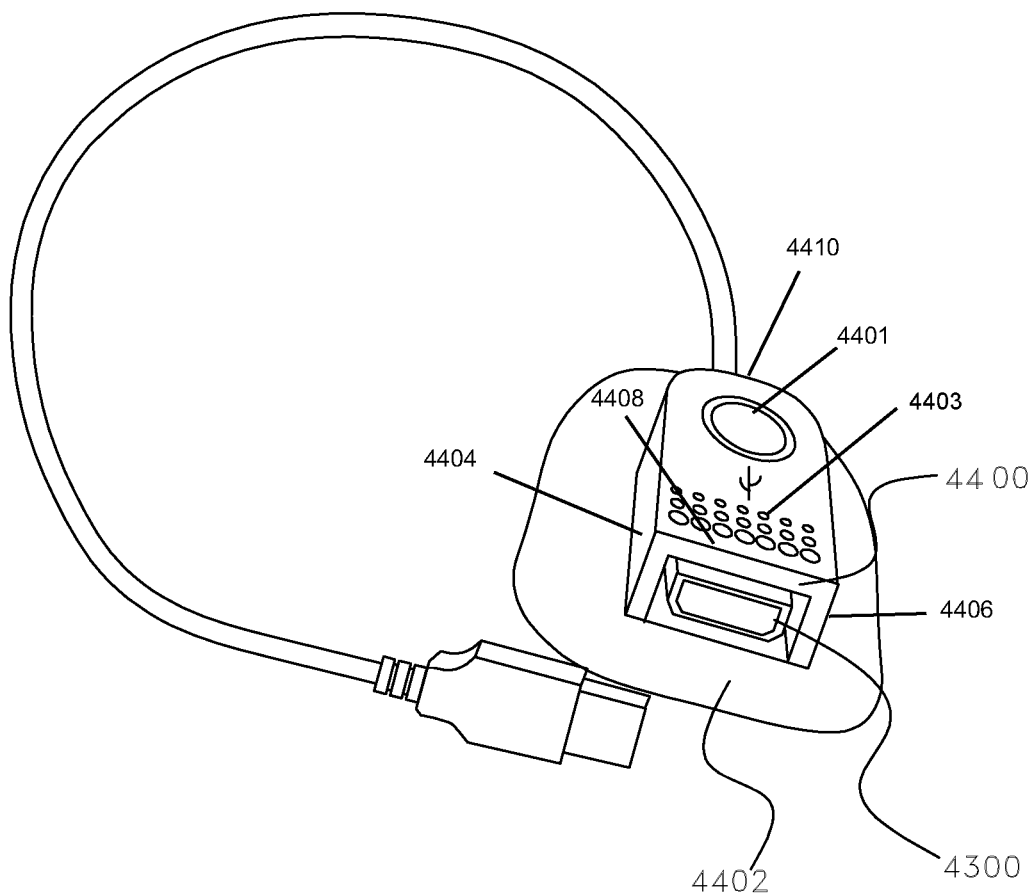


Fig. 44



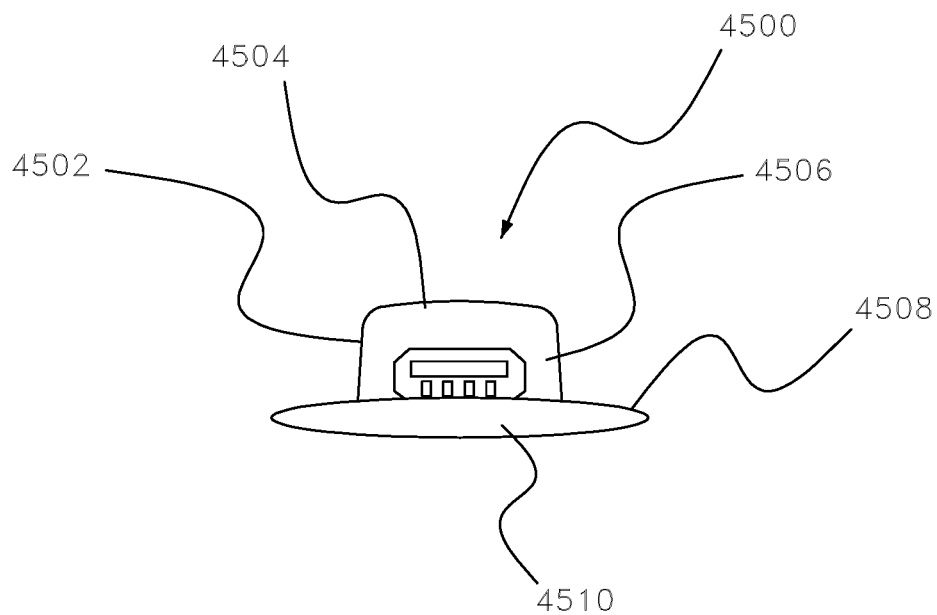
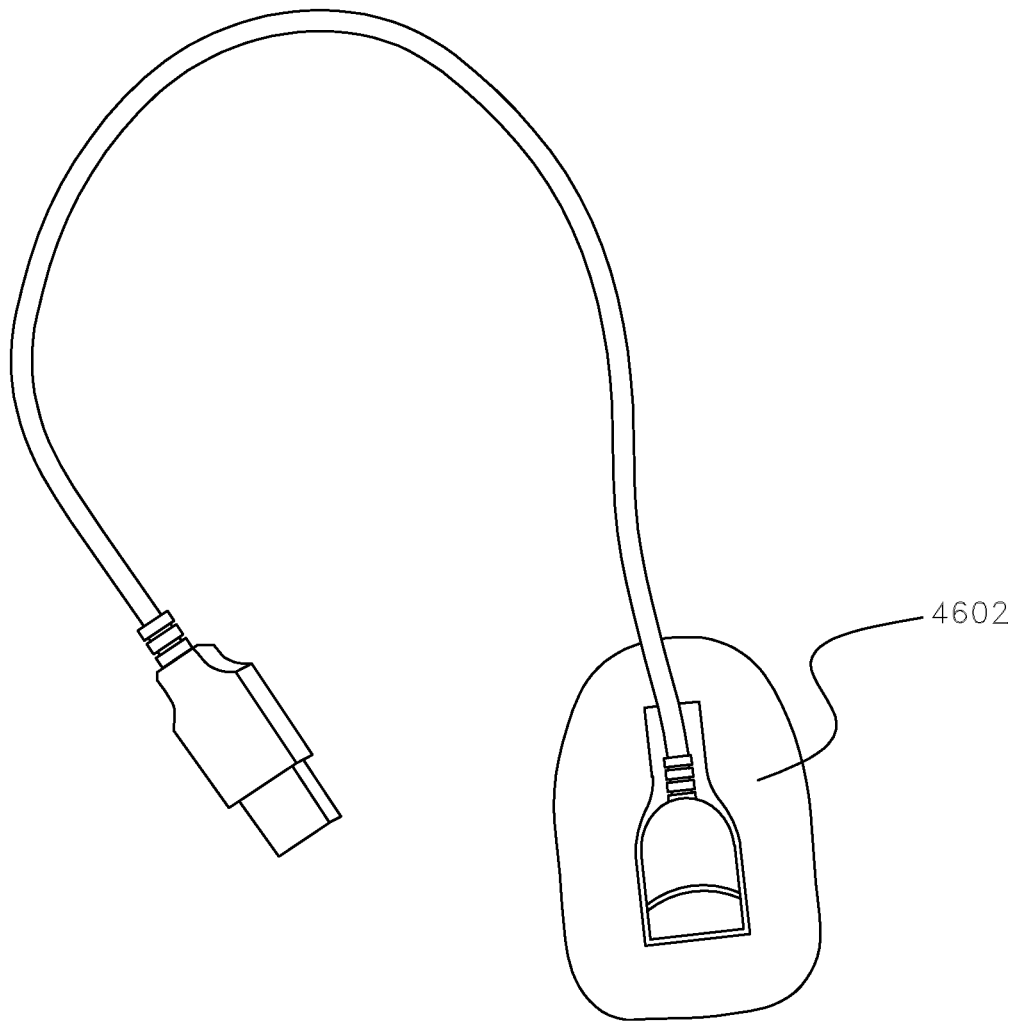
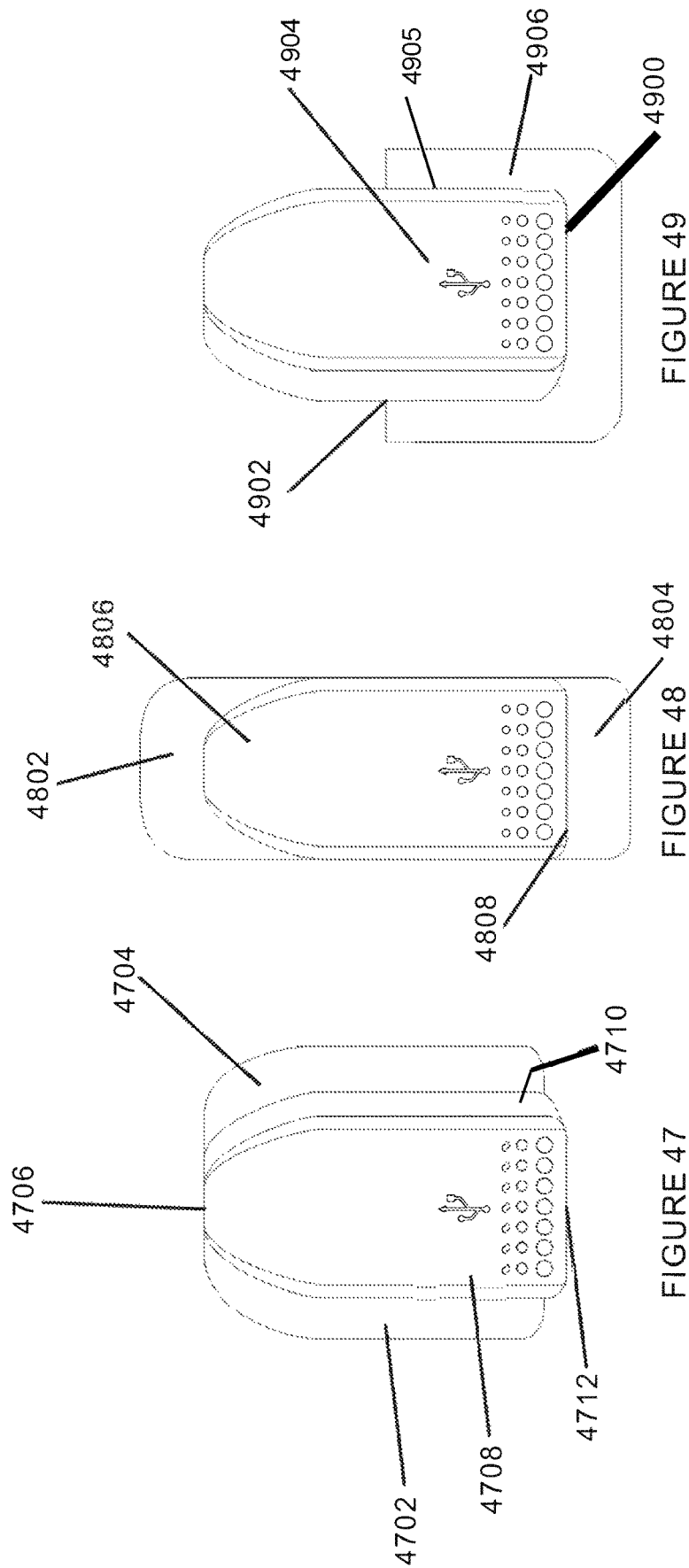
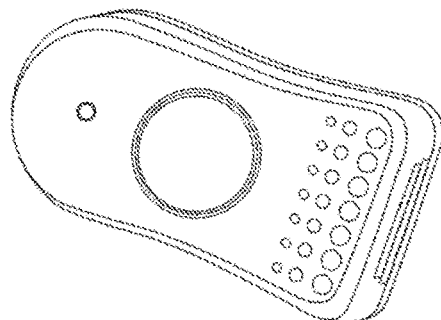
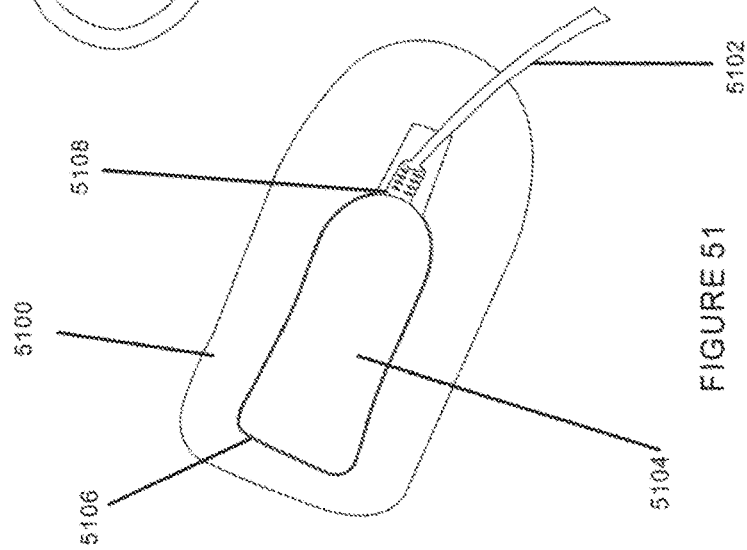
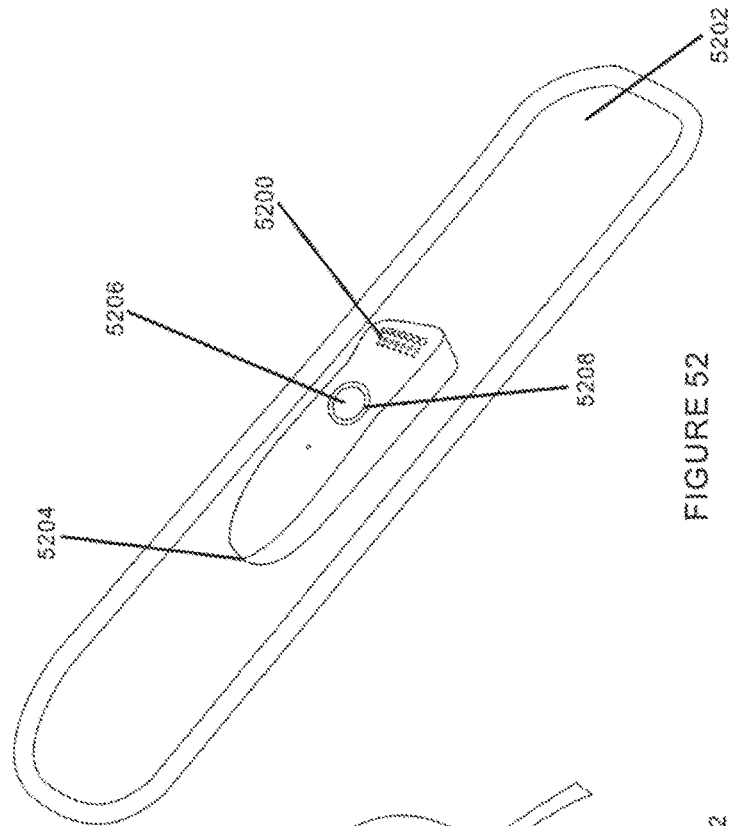


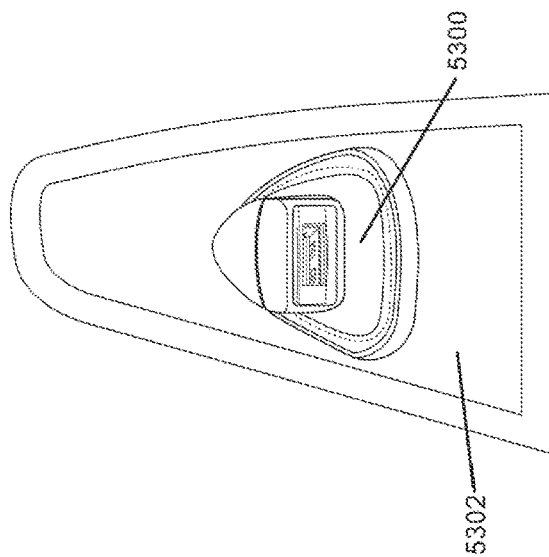
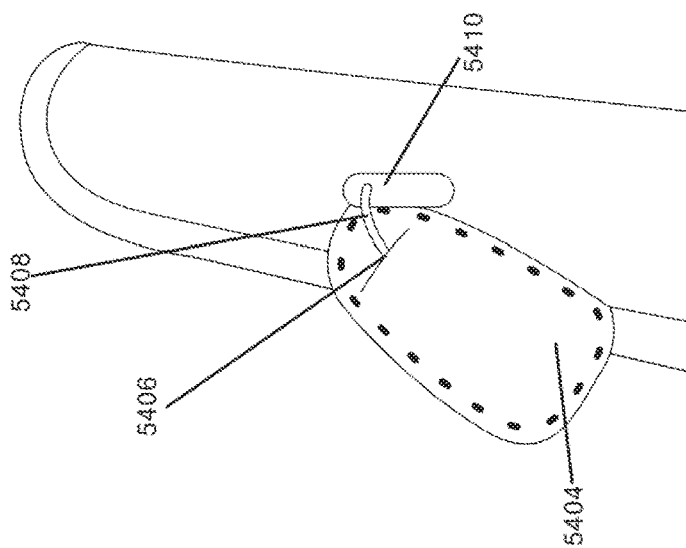
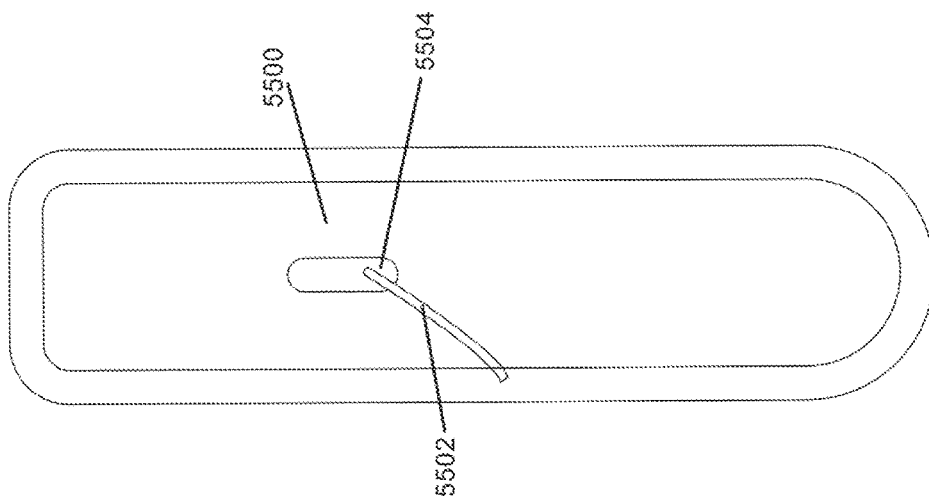
Fig. 45

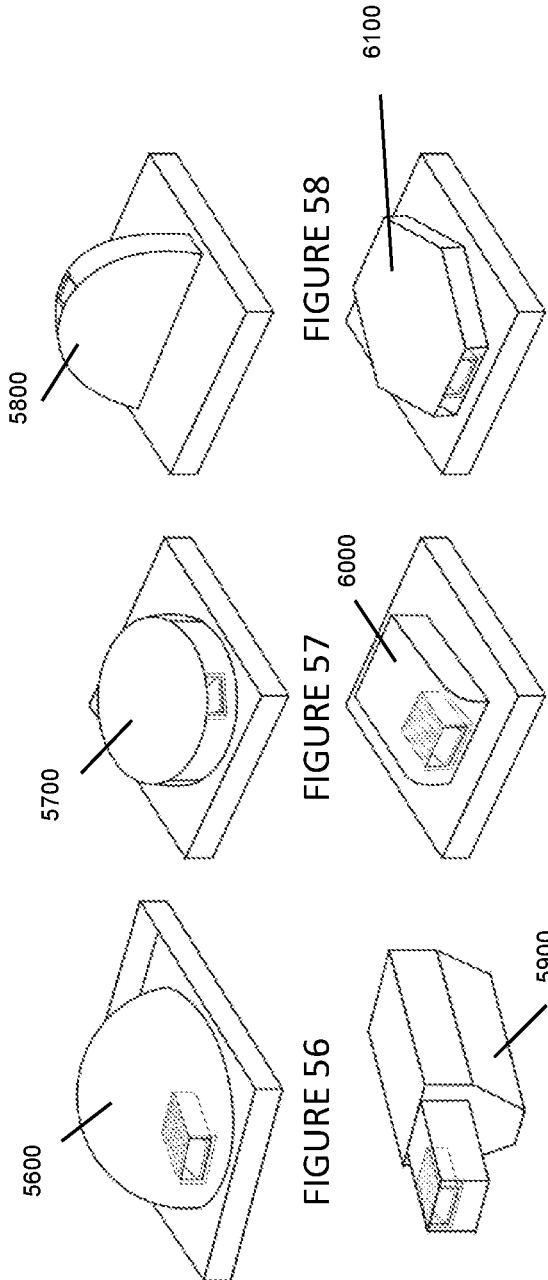


**Fig. 46**









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**SHEATH FOR USB CHARGER**

## TECHNICAL FIELD

The present invention model relates to a sheath for a USB charger for convenient charging of personal devices such as smart phones, tablets or any device that requires recharging.

## BACKGROUND OF THE INVENTION

With the constant development of our society, diverse portable digital devices are emerging in our lives, and we rely more and more on them, including tablet computers, cellphones, digital cameras, video cameras and the like. In addition to containing the stuff, people want more functionality from the bags and luggage. For example, charging the portable digital devices. Especially for tourists, field staff and those making long-term business trips, it is not easy to charge their digital devices when the battery is dying, causing a lot of inconvenience and trouble in their works and lives. The sheath according to the present invention allows for bags, luggage, clothing, activewear and anything wearable or carried to be equipped with a charging function, or a portable power source. It is no longer necessary to open the bag, luggage or clothing for charging, which is convenient.

## SUMMARY OF THE INVENTION

The present invention intends to overcome the disadvantages stated above, and provides a sheath that may be incorporated into luggage, bags, gloves, activewear, jacket, socks, shoes, hats, glasses, goggles, belts or anything wearable or that can be carried for convenient charging, which enables the user to charge a device or product needing to be charged conveniently at any time or any place during traveling, without necessarily opening the bag, luggage, or clothing nor taking out the power source for charging. The term "body" refers to any suitable base that the sheath may be attached to for easy charging, including, without limitation a bag, luggage, clothing, activewear, shoes, hats, glasses, belt or anything wearable or that can be carried.

The present invention is realized in the following way a sheath for convenient charging is provided, comprising: a sheath having at least three sides, a first tapered closed end and a second open end, wherein at least a portion of the sheath extends above an outer surface of a body, wherein the body has an inner surface, an outer surface and a opening between the inner surface and the outer surface; wherein the sheath is at the opening and the sheath receives a female end of a USB cable having four sides, an operative end and a cord end; and wherein the operative end of the female end of the USB cable is in communication with the second open end of the sheath and the cord end of the female end of a USB cable is in communication with the first tapered closed end of the sheath to provide the female end of the UBS cable in a flat position with the operative end of the female connector being uncovered and above the outer surface of the body.

During traveling, when the battery of the product to be charged is dying, it is only necessary to plug the charging interface of the product to be charged into the female end of the USB cable, then the charging starts, without necessarily opening the bag or luggage, nor taking out the power source for charging.

The sheath may be further equipped with a dust cap for dust proofing. The sheath may also have openings for ventilation, to prevent overheating of the device. The open-

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ing may be provided on the surface of the body, the female connector is operatively exposed outside the opening, and a dust cap may be attached on the side of the female connector. For the convenience of the configuration of the USB extension cable, the bag or luggage body may be provided with a cable laying channel from the power storage device placing space to the opening for the penetration of the USB extension cable. In order to prevent the loss of the bag or luggage, the female connector of the USB extension cable may be further equipped with a Bluetooth anti-lost alarm, which is used to connect to the Bluetooth device on the product to be charged. For real-time positioning or location of the bag or luggage for convenient charging provided by the utility model, the female connector of the USB extension cable may be further equipped with a GPS device for positioning (or locating).

Compared with the prior art, the present invention enjoys the following advantages (1) provides a body for convenient charging, which enables a user to charge a product needing to be charged conveniently at any time or any place during traveling, without necessarily opening the bag or luggage, nor taking out the power source for charging. (2) the charging interface is featured with waterproof and dust-proof functions, resulting in reliable performance; (3) the flat position of the female end of the USB provides a sturdy position for the external USB cable to connect to. In this way, a user may, with one hand attach an external USB cable. The sheath may also be typically installed to face down towards the ground on the body. This also provides an additional level of waterproofing, as the open end is faced downward.

## BRIEF DESCRIPTION OF THE DRAWINGS

The utility model is further described as follows with reference to drawings and embodiments:

FIG. 1 depicts aspects of the present invention;  
 FIG. 2 depicts aspects of the present invention;  
 FIG. 3 depicts aspects of the present invention;  
 FIG. 4 depicts aspects of the present invention;  
 FIG. 5 depicts aspects of the present invention;  
 FIG. 6 depicts aspects of the present invention;  
 FIG. 7 depicts aspects of the present invention;  
 FIG. 8 depicts aspects of the present invention;  
 FIG. 9 depicts aspects of the present invention;  
 FIG. 10 depicts aspects of the present invention;  
 FIG. 11 depicts aspects of the present invention;  
 FIG. 12 depicts aspects of the present invention;  
 FIG. 13 depicts aspects of the present invention;  
 FIG. 14 depicts aspects of the present invention;  
 FIG. 15 depicts aspects of the present invention;  
 FIG. 16 depicts aspects of the present invention;  
 FIG. 17 depicts aspects of the present invention;  
 FIG. 18 depicts aspects of the present invention;  
 FIG. 19 depicts aspects of the present invention;  
 FIG. 20 depicts aspects of the present invention;  
 FIG. 21 depicts aspects of the present invention;  
 FIG. 22 depicts aspects of the present invention;  
 FIG. 23 depicts aspects of the present invention;  
 FIG. 24 depicts aspects of the present invention;  
 FIG. 25 depicts aspects of the present invention;  
 FIG. 26 depicts aspects of the present invention;  
 FIG. 27 depicts aspects of the present invention;  
 FIG. 28 depicts aspects of the present invention;  
 FIG. 29 depicts aspects of the present invention;  
 FIG. 30 depicts aspects of the present invention;  
 FIG. 31 depicts aspects of the present invention;

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FIG. 32 depicts aspects of the present invention;  
 FIG. 33 depicts aspects of the present invention;  
 FIG. 34 depicts aspects of the present invention;  
 FIG. 35 depicts aspects of the present invention;  
 FIG. 36 depicts aspects of the present invention;  
 FIG. 37 depicts aspects of the present invention;  
 FIG. 38 depicts aspects of the present invention;  
 FIG. 39 depicts aspects of the present invention;  
 FIG. 40 depicts aspects of the present invention;  
 FIG. 41 depicts aspects of the present invention;  
 FIG. 42 depicts aspects of the present invention;  
 FIG. 43 depicts aspects of the present invention;  
 FIG. 44 depicts aspects of the present invention;  
 FIG. 45 depicts aspects of the present invention;  
 FIG. 46 depicts aspects of the present invention;  
 FIG. 47 depicts aspects of the present invention;  
 FIG. 48 depicts aspects of the present invention;  
 FIG. 49 depicts aspects of the present invention;  
 FIG. 50 depicts aspects of the present invention;  
 FIG. 51 depicts aspects of the present invention;  
 FIG. 52 depicts aspects of the present invention;  
 FIG. 53 depicts aspects of the present invention;  
 FIG. 54 depicts aspects of the present invention;  
 FIG. 55 depicts aspects of the present invention;  
 FIG. 56 depicts aspects of the present invention;  
 FIG. 57 depicts aspects of the present invention;  
 FIG. 58 depicts aspects of the present invention;  
 FIG. 59 depicts aspects of the present invention;  
 FIG. 60 depicts aspects of the present invention; and  
 FIG. 61 depicts aspects of the present invention.

#### DETAILED DESCRIPTION OF THE EMBODIMENTS

The content of the utility model is further described in detail as follows with reference to the drawings for specification and specific embodiments.

FIG. 1 shows embodiment 1 of the utility model, which is a backpack comprising the bag body 1, wherein, a placing space for placing an electrical storage device (which is not shown in the drawing) is provided inside the bag body 1, and a opening on the side of the bag body 1; the bag further comprises a USB extension cable 2 on the bag body 1, and the male connector 2-1 of the USB extension cable 2 is connected to the power storage device in the power storage device placing space; the female connector 2-2 is exposed outside the opening, and the female connector 2-2 is equipped with a sheath 3 for water proofing wrapped on the outer surface of the female connector 2-2; the male connector 2-2 is further equipped with a Bluetooth anti-lost alarm 9, which is used to connect to the Bluetooth device on the product to be charged, and a GPS device 10 for positioning. The sheath as depicted in FIGS. 1 and 2 is a woven material that has at least one ventilation opening (the woven layers provide openings between each of the woven layers). The openings are small, as to protect the female connector contained inside.

During traveling, when the battery of the product to be charged is dying, it is only necessary to plug the external USB connecting line 12 to the female connector 2-2 of the USB extension cable 2, then the charging starts, without necessarily opening the bag or luggage, nor taking out the power source for charging.

FIG. 2 shows embodiment 2 of the utility model, which is different to the embodiment 1 that the sheath 3 is further equipped with a dust cap 4 for dust proofing, and the dust

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cap 4 is attached on the side of the female connector 2-2, which is overturning connected to the side of the female connector 2-2.

FIG. 3 shows embodiment 3 of the utility model, which is a rod box comprising the box body 1, wherein, a placing space for placing an electrical storage device (which is not shown in the drawing) is provided inside the box body 1, and a opening on the side of the box body 1; the box further comprises a USB extension cable 2 on the box body 1, and the male connector 2-1 of the USB extension cable 2 is connected to the power storage device in the power storage device placing space; the female connector 2-2 is exposed outside the opening, and the female connector 2-2 is equipped with a sheath 3 for water proofing wrapped on the outer surface of the female connector 2-2, and the external USB connecting line 12 connected to the female connector 2-2.

FIG. 4 shows embodiment 4 of the utility model, which is a gentlemen's bag comprising the bag body 1, wherein a placing space for placing an electrical storage device (which is not shown in the drawing) is provided inside the bag body 1, and a opening (which is not shown in the drawing) on the surface of the bag body 1; the bag further comprises a USB extension cable 2 on the bag body 1, and the male connector 2-1 of the USB extension cable 2 is connected to the power storage device in the power storage device placing space; the female connector 2-2 is exposed outside the opening, and the female connector 2-2 is equipped with a sheath 3 for water proofing wrapped on the outer surface of the female connector 2-2.

FIG. 5 shows embodiment 5 of the utility model, which is a lady handbag comprising the bag body 1, wherein, a placing space for placing an electrical storage device (which is not shown in the drawing) is provided inside the bag body 1, and a opening at the bottom on the side of the bag body 1; the bag further comprises a USB extension cable 2 on the bag body 1, and the male connector 2-1 of the USB extension cable 2 is connected to the power storage device in the power storage device placing space; the female connector 2-2 is at the opening, and the dust cap 4 is at the opening of the groove 5, which is overturning connected to the groove 5.

FIG. 6 shows embodiment 6 of the utility model, which is a briefcase comprising the case body 1, wherein, a placing space for placing an electrical storage device (which is not shown in the drawing) is provided inside the case body 1, and a opening at the bottom on the side of the case body 1; the case further comprises a USB extension cable 2 on the case body 1, and the male connector 2-1 of the USB extension cable 2 is connected to the power storage device in the power storage device placing space; the opening is below the nameplate 6, and the female connector 2-2 is at the opening.

FIG. 7 shows embodiment 7 of the utility model, which is a briefcase. The difference between this embodiment and the embodiment 6 is that: the opening is below the fastener 7, and the female connector 2-2 is in the opening.

FIG. 8 shows embodiment 8 of the utility model, which is a shoulder bag comprising the bag body 1, wherein, a placing space for placing an electrical storage device (which is not shown in the drawing) is provided inside the bag body 1, and a opening on the side of the bag body 1; the bag further comprises a USB extension cable 2 on the bag body 1, and the male connector 2-1 of the USB extension cable 2 is connected to the power storage device in the power storage device placing space; the female connector 2-2 is exposed outside the opening, and the female connector 2-2



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is equipped with a sheath **3** for water proofing wrapped on the outer surface of the female connector **2-2**.

FIG. **9** shows embodiment 9 of the utility model, which is an outdoor backpack comprising the bag body **1**, wherein, a placing space for placing an electrical storage device is provided inside the bag body **1**, and a opening on a shoulder strap of the bag body **1**; the bag further comprises a USB extension cable **2** on the bag body **1**, and the male connector **2-1** of the USB extension cable **2** is connected to the power storage device in the power storage device placing space; the female connector **2-2** is exposed outside the opening, and the female connector **2-2** is equipped with a sheath **3** for water proofing wrapped on the outer surface of the female connector **2-2**; the bag or luggage body **1** is provided with a cable laying channel **8** from the power storage device placing space to the opening for the penetration of the USB extension cable **2**.

FIG. **10** shows the embodiment 10 of the utility model, which is an outdoor backpack. The difference between this embodiment and the embodiment 9 is that: the opening is on the side of the bag body **1**.

FIGS. **11-13** depicts a sheath (**1200**) for convenient charging, comprising: a sheath (**1200**) having at least three sides (**1202**, **1204** and **1206**), a first tapered closed end (**1208**) and a second open end (**1210**), wherein at least a portion of the waterproof sheath (**1200**) extends above an outer surface of a body (**1300**) wherein the body has an inner surface (see e.g. **1900**), an outer surface (e.g. **2102**) and a opening (**1302**) between the inner surface (**1900**) and the outer surface (e.g. **2102**). The opening (**1302**) may also be described as a cutout in the body which is necessarily in the outer surface and the inner surface. The waterproof sheath (e.g. **1200** and **2100**) is at the opening (**1302**) and the waterproof sheath receives a female end of a USB cable (**2200**) having four sides, an operative end and a cord end. The sheath tapers down from the four sides to the first tapered closed end. Typically, as shown, the sheath tapers down from a point less than half the length of the four sides to the first tapered closed end. The taper serves the purpose to accommodate the cord end of the female end of the USB cable such that it is retained and does not easily fall out. FIG. **18** depicts an example of a female end of a USB cable having four sides (**1800**, **1802**, **1804**, **1806**), an operative end (**1808**) and a cord end (**1810**). The operative end (**1808**) refers to the end of the female end of a USB cable that may operate and accept an external USB connecting line having a male end. The sheath may also have at least one ventilation opening (See FIG. **44**, ventilation openings **4403**) on at least one of the at least three sides of the water proof sheath. This provides ventilation to prevent overheating. The male end of the external USB connecting line is plugged into the operative end (**1808**) of the female end of the USB cable when the user wants to utilize the device. For example, when the user wants to charge an external item, such as a mobile phone. FIG. **1** depicts an example of an external USB connecting line (**12**) with the male end plugged into the operative end of the female end of the USB cable. The operative end (**1808**, **4300**) of the female end of the USB cable is in communication with the second open end of the waterproof sheath (**4400**) and the cord end (**1810**) of the female end of a USB cable is in communication with the first tapered closed end (**1208**) of the sheath to provide the female end of the UBS cable in a flat position with the operative end of the female connector being uncovered and above the outer surface of the body (See FIG. **44**). FIG. **43** depicts the female end of a USB cable (**4300**) and the underside of the sheath (**4302**). FIG. **44** depicts a front view of the sheath with the female end of the

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USB cable (**4300**) contained therein. FIG. **45** depicts a front view of the sheath (**4500**) depicting the at least three sides (**4502**, **4504** and **4506**). It is noted that the sheath may also have a surrounding bottom attachment portion (**4508** and **4602**) which allows the sheath to be easily attached to a body. The surrounding bottom attachment portion is a flat portion surrounding the at least three sides, the first tapered closed end and the second open end of the sheath. As shown in FIG. **14-16** this may allow the sheath to be sewn or glued to the body. The attachment portion (**4508** and **4602**) is in communication with the inner surface of the body. There may also be a piece of fabric (**1500**) in communication with the inner surface of the body and retaining at least the operative end of the female end of the USB cable in the sheath. The piece of fabric may partially (as depicted in FIG. **15**) or entirely (as depicted by the rigid cover **2000** in FIG. **20** and depicted in FIG. **23**) cover the opening between the inner surface and the outer surface and has an opening for the USB cable. FIG. **20** depicts that the piece of fabric is a reinforced piece of fabric which may be a rigid cover (**2000**) in communication with the inner surface of the body and retaining at least the operative end of the female end of the USB cable in the sheath. The sheath may also have four sides with a bottom side (**4510**) having a bottom side opening to allow the female end of the USB cable (**2200**) to sit in the sheath and the cord of the USB to go through the bottom side opening and the opening. This is to say that the sheath may have at least three sides and an embodiment is envisioned with the sheath having four sides without departing from the present invention.

The body (**2202**) may be, for example, luggage (FIG. **3**, body **1**), bag (FIG. **1**, body **1**), gloves (FIG. **35**, sheath **3500**, body **3502**), activewear, jacket (FIG. **36**, sheath **3600**, body **3602**), socks (FIG. **37**, sheath **3700**, body **3702**), shoes (FIG. **41**, sheath **4100**, body **4102**), hats (FIG. **38**, sheath **3800**, body **3802**), glasses (FIG. **39**, sheath **3900**, body **3902**), goggles (FIG. **40**, sheath **4000**, body **4002**) and belt (FIG. **42**, sheath **4200**, body **4202**).

There may be a second outer surface (**3300**) that covers the outer surface of the body (**3302**). Similarly, the outer surface of the body may be the inside of a pocket (See FIGS. **28**, **29**, **30** and **31**). The outer surface onto which the sheath is mounted may have an additional cover or be on the inside of a pocket without departing from the present invention.

As depicted in FIGS. **1**, **4**, **6**, **7**, **8**, **9**, **10**, **32**, **33**, **34**, **36**, **37**, **38**, **40**, **41** and **42**, the sheath is attached to the body with the first tapered closed end above the second open end. Specially, the second open end is substantially parallel to the ground of the user. This is to say that the open end of the sheath faces the ground. This provides another level of dust and water protection to the operative end of the USB cable.

With reference to FIGS. **44**, **47**, **48** and **49**, a sheath for convenient charging is provided, comprising: a sheath having a left side (**4404**), a right side (**4406**), a top side (**4408**), a first closed end (**4410**), a second open end (**4400**) and a surrounding bottom portion (**4402**) surrounding at least a portion of one of the left side (**4404**), the right side (**4406**), the top side (**4408**), the first closed end (**4410**) and the second open end (**4400**) of the sheath. The “surrounding at least a portion of one of the left side (**4404**), the right side (**4406**), the top side (**4408**), the first closed end (**4410**) and the second open end (**4400**) of the sheath” is intended to say that the surrounding bottom portion may surround a portion of the sheath that extends above the outer surface of a body, as depicted in FIGS. **47**, **48** and **49**. As can be seen in FIG. **47**, the surrounding bottom portion has a surrounding bottom portion left side (**4702**) attached to the left side (**4708**)

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and a surrounding bottom portion right side (4704) attached to the right side (4710) of the sheath. It is noted that the surrounding bottom portion left side (4702) is attached to a small portion of the first closed end (4706) and the surrounding bottom portion right side (4704) is also attached to a small portion of the first closed end (4706). In this embodiment, the surrounding bottom portion does not meet the second open end (4712). As can be seen in FIG. 48, the surrounding bottom portion has a surrounding bottom portion first end portion (4802) and a surrounding bottom portion second end portion (4804). In this embodiment, the surrounding bottom portion first end portion (4802) is attached to the first closed end (4806) and the surrounding bottom portion second end portion (4804) is attached to the second open end (4808). As can be seen in FIG. 49, the sheath (4904) has a the surrounding bottom portion (4906) attached a portion of the left side (4902), a portion of the right side (4905) and the second open end (4900).

When attached to the body, at least a portion of the sheath extends above an outer surface (5202) of a body, wherein the body has an inner surface (not shown in this Figure, see 1900 of FIG. 19 for the inner surface, it would be understood and appreciated by one of ordinary skill in the art that the inner surface is simply the other side of the outer surface), an outer surface (5202) and an opening (5204) between the inner surface and the outer surface. The opening (5204) refers to the hole in the body. This may take different forms. According to one embodiment, as depicted in FIGS. 52, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 25, 26 and 27 the surrounding bottom portion touches the inner surface of the body and the sheath sits inside an opening in the body and extends above an outer surface of a body. The body has an opening between the inner surface and the outer surface and the surrounding bottom portion is attached to the inner surface of the body. The surrounding bottom portion (5100) of the sheath in FIG. 52 is not seen as it is on the inner surface of the body. The cord (5102) of the USB cable is on the interior of the body.

Alternatively, as depicted in FIGS. 53, 54 and 55, the entire sheath (including the surrounding bottom portion (5300) may sit on top of the body. The surrounding bottom portion (5300) may be in communication with the outer surface (5302) of the body. There may also be a piece of material (5404) attached to the surrounding bottom portion (5300) to retain the operative end of the female end of the USB cable in the sheath. As can be seen there would be a cord opening (5406) in the piece of material (5404) to allow the USB cable to be attached to the top of the body and the cord (5408) fed through an opening (5410) in the body to the interior of the body. FIG. 55 depicts the interior (5500) of the body showing cord (5502) fed through opening (5504).

In both embodiments (the surrounding bottom portion on top of the body or on the inner surface of the body) the sheath is at the opening and the sheath receives a female end of a USB cable (5104) having four sides (see FIGS. 43, 4304, 4306, 4308 and 4310 depicting the USB cables four sides), an operative end (5106), a cord end (5108) and a cord (5102). As depicted in FIG. 44, the operative end (4300) of the female end of the USB cable is retained in the second open end (4400) of the sheath and the cord end of the female end of the USB cable is retained in the first closed end (4410) of the sheath to provide the female end of the UBS cable in a flat position with the operative end (4300) of the female connector being uncovered and above the outer surface of the body (See FIGS. 52 and 53), wherein the cord of the female end goes through the opening between the inner surface and the outer surface and the surrounding

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bottom portion is attached to a portion of the body (See FIG. 51 cord (5102) and FIG. 55 cord (5502)).

As depicted in FIG. 3, an external USB connecting line (12) having a male end (15), wherein the male end (15) of the external USB connecting line is plugged into the operative end of the female end of the USB cable. At least one of a male connector of a USB extension cable and the female connector of the USB extension cable is further equipped with a wireless technology standard for exchanging data over short distances as an anti-loss alarm, which is used to connect to the device on the product to be charged (see application Ser. No. 15/798,658 which is incorporated herein by reference and now issued as U.S. Pat. No. 9,865,153). At least one of the male connector and the female connector of the USB extension cable may be further equipped with a GPS device for positioning.

One of the sides of the female end of the USB cable may have an actuation button (5206) and a corresponding portion of the sheath has an opening (5208) that surrounds the actuation button (5206). See also FIG. 44, wherein one of the sides of the female end of the USB cable has an actuation button and the corresponding side of the sheath has an corresponding button (4401) communicating with the top of the actuation button.

As shown in FIGS. 56, 57, 58, 29, 60 and 61 the raised portion may take many different shapes. The sheath having a raised portion that is selected from the group consisting of dome shaped (5600), raised circular shape (5700), raised semi-circular shape (5800), raised rectangular shape (6000), raised square shape and raised polygon shape (6100 and 5900) that extends above an outer surface of a body, wherein the raised portion has a USB opening, and a surrounding bottom portion surrounding at least a portion of the raised portion, wherein the body has an inner surface, an outer surface and a body opening between the inner surface and the outer surface; wherein the sheath is at the body opening with the raised portion above the outer surface and at least a portion of the surrounding bottom portion is in communication with a portion of the body, and wherein the sheath has a female end of a USB cable in the USB opening, wherein the female end of the USB cable has four sides, an operative end and a cord end and the operative end of the female end of the USB cable is retained in the USB opening to provide the female end of the UBS cable in a flat position with the operative end of the female connector being uncovered and above the outer surface of the body.

The specific embodiments above are only detailed explanation on the technical solutions of the utility model, and the utility model is not limited only by the embodiments above. Any improvement or replacement based on the principle of the utility model shall be within the protection scope defined in claims of the utility model.

I claim:

1. A sheath for convenient charging, comprising:

a sheath having a left side, a right side and a top side, a first closed end, a second open end and a surrounding bottom portion surrounding at least a portion of one of the left side, the right side, the top side, the first closed end and the second open end of the sheath,

wherein at least a portion of the sheath extends above an outer surface of a body, wherein the body has an inner surface, an outer surface and an opening between the inner surface and the outer surface;

wherein the sheath is at the opening and the sheath receives a female end of a USB cable having four sides, an operative end, a cord end and a cord,

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wherein the operative end of the female end of the USB cable is retained in the second open end of the sheath and the cord end of the female end of the USB cable is retained in the first closed end of the sheath to provide the female end of the UBS cable in a flat position with the operative end of the female connector being uncovered and above the outer surface of the body,

wherein the cord of the female end goes through the opening between the inner surface and the outer surface and the surrounding bottom portion is attached to a portion of the body.

2. A sheath as in claim 1, wherein the body has an opening between the inner surface and the outer surface and the surrounding bottom portion is attached to the inner surface of the body.

3. A sheath as in claim 1, further comprising an external USB connecting line having a male end, wherein the male end of the external USB connecting line is plugged into the operative end of the female end of the USB cable.

4. The sheath as in claim 1, wherein the body is selected from the group consisting of luggage, bag, gloves, activewear, jacket, socks, shoes, hats, glasses, goggles and belt.

5. The sheath as in claim 1, further comprising a second outer surface that covers the outer surface of the body.

6. The sheath as in claim 1, wherein the sheath has at least one ventilation opening on at least one of the at least three sides of the water proof sheath.

7. The sheath as in claim 1, wherein the at least one ventilation opening is along the second open end of the sheath.

8. The sheath as in claim 1, further comprising an attachment portion that extends around a bottom portion of the sheath and is in communication with the inner surface of the body.

9. The sheath as in claim 8, wherein the piece of fabric entirely covers the opening between the inner surface and the outer surface and has an opening for the USB cable.

10. The sheath as in claim 1, further comprising a piece of fabric in communication with the inner surface of the body and retaining at least the operative end of the female end of the USB cable in the sheath.

11. The sheath as in claim 10, wherein the piece of fabric is selected from the group consisting of a reinforced piece of fabric, elastic material and ribbon.

12. The sheath as in claim 1, further comprising a rigid cover in communication with the inner surface of the body and retaining at least the operative end of the female end of the USB cable in the sheath.

13. The sheath as in claim 1, further comprising a dust cap attached to the sheath, wherein the dust cap is movable to cover and uncover the operative end of the female connector.

14. The sheath as in claim 1, wherein at least one of a male connector of a USB extension cable and the female connector of the USB extension cable is further equipped with a wireless technology standard for exchanging data over short

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distances as an anti-loss alarm, which is used to connect to the device on the product to be charged.

15. The sheath as in claim 1, wherein at least one of the male connector and the female connector of the USB extension cable is further equipped with a GPS device for positioning.

16. The sheath as in claim 1, wherein the first closed end is tapered and the sheath tapers down from the four sides to the first closed end.

17. The sheath as in claim 1, wherein the sheath has four sides with a bottom side having a bottom side opening to allow the female end of the USB cable to sit in the sheath and the cord of the USB to go through the bottom side opening.

18. The sheath as in claim 1, wherein the outer surface of the body is the inside of a pocket.

19. The sheath as in claim 1, wherein the sheath is attached to the body with the first closed end above the second open end.

20. The sheath as in claim 1, further comprising a piece of material attached to at least one of a portion of the inner surface of the body and a portion of the surrounding bottom portion to retain the operative end of the female end of the USB cable in the sheath.

21. The sheath as in claim 1, wherein the surrounding bottom portion is a flat portion.

22. The sheath as in claim 1, wherein the body is provided with a cable laying channel from a power storage device placing space to the opening for the penetration of the USB extension cable.

23. A sheath for convenient charging, comprising:  
a sheath having a raised portion that extends above an outer surface of a body, wherein the raised portion has a USB opening, and a surrounding bottom portion surrounding at least a portion of the raised portion, wherein the body has an inner surface, an outer surface and a body opening between the inner surface and the outer surface;

wherein the sheath is at the body opening with the raised portion above the outer surface and at least a portion of the surrounding bottom portion is in communication with a portion of the body,

wherein the sheath has a female end of a USB cable in the USB opening, wherein the female end of the USB cable has four sides, an operative end and a cord end and the operative end of the female end of the USB cable is retained in the USB opening to provide the female end of the UBS cable in a flat position with the operative end of the female connector being uncovered and above the outer surface of the body.

24. A sheath as in claim 23, wherein the raised portion is selected from the group consisting of dome shaped, raised circular shape, raised semi-circular shape, raised rectangular shape, raised square shape and raised polygon shape.

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